White Sands Missile Range

Data Review

Otero County, New Mexico

Volatile Organics

SDGs # 9082608, 9090808 Analyses Performed By: Trace Analysis, Inc. Lubbock, Texas

Report #10902R Review Level: Tier II

Project: GP08WSMR00SW OC009

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDGs) 9082608 and 9090808 for samples collected in association with the White Sands Water Monitoring Site, Otero County, New Mexico. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

				Sample		Analysis					
SDG Number	Sample ID	Lab ID	Matri x	Collection Date	Parent Sample	voc	svoc	HERB /PEST	MET	MISC	
	HLSF-0143-HMW-041-0809	207800	Water	08/24/2009		Х					
	HLSF-3839-HMW-029-0809	207801	Water	08/20/2009		Χ					
	HLSF-3839-HMW-033-0809	207802	Water	08/20/2009		Χ					
	HLSF-3839-HMW-133-0809	207803	Water	08/20/2009		Х					
9082608	HLSF-3839-HMW-032-0809	207804	Water	08/21/2009		Х					
	HLSF-0143-HMW-039-0809	207805	Water	08/24/2009		Χ					
	HLSF-3839-HMW-035-0809	207806	Water	08/19/2009		Χ					
	HLSF-3839-HMW-034-0809	207807	Water	08/19/2009		Χ					
	HLSF-3839-TB-09-000	207808	Water	08/24/2009		Χ					
	HLSF-0154-DRW-016-0909	209311	Water	09/01/2009		Χ					
	HLSF-0154-HCF-001-0909	209312	Water	09/02/2009		Х					
	HLSF-0154-DRW-005-0909	209313	Water	09/01/2009		Χ					
000000	HLSF-0143-HMW-013-0909	209314	Water	09/01/2009		Х					
9090808	HLSF-0143-HMW-036-0909	209315	Water	09/01/2009							
	HLSF-0154-DRW-016-0909	209316	Water	09/01/2009	MS/MSD	Χ					
	HLSF-0154-DRW-004-0909	209317	Water	09/02/2009		Χ					
	HLSF-0154-TB-09-0002	209318	Water	09/02/2009		Х					

Note: Sample HLSF-0154-DRW-016-0909 was utilized as the Matrix Spike/Matrix Spike Duplicate (MS/MSD).

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

		Repo	orted		mance ptable	Not
	Items Reviewed	No	Yes	No	Yes	Required
1.	Sample receipt condition		Х		Х	
2.	Requested analyses and sample results		X		Χ	
3.	Master tracking list		Х		Х	
4.	Methods of analysis		Χ		X	
5.	Reporting limits		Х		Х	
6.	Sample collection date		Х		X	
7.	Laboratory sample received date		Х		Х	
8.	Sample preservation verification (as applicable)		Х		Х	
9.	Sample preparation/extraction/analysis dates		Х		Х	
10.	Fully executed Chain-of-Custody (COC) form		Х		Х	
11.	Narrative summary of QA or sample problems provided		Х		Х	
12.	Data Package Completeness and Compliance		Х		Х	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999/January 2005.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
 - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
 - E The compound was quantitated above the calibration range.
 - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
 - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
 - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
 - UB Compound considered non-detect at the listed value due to associated blank contamination.
 - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
 - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2 s.u.
377-040 0200	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
HLSF-0143-HMW-041- 0809	2-Butanone		
HLSF-0154-DRW-005- 0909	Acetone 1,2,4- Trimethylbenzene	Detected counts	"UB" at detected
HLSF-0143-HMW-036- 0909	Acetone	Detected sample results >RL and <bal< td=""><td>sample concentration</td></bal<>	sample concentration
HLSF-0154-DRW-016- 0909	n-Butylbenzene		
HLSF-0154-DRW-004- 0909	Acetone 2-Butanone		

RL Reporting limit

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
	Bromomethane	>UL	>UL
	Acetone	<ll but="">10%</ll>	<ll but="">10%</ll>
HLSF-0154-DRW-016- 0909	Trans 1,4-Dichloro-2-butene	<ll but="">10%</ll>	<ll but="">10%</ll>
	Trichloroethene	<ll but="">10%</ll>	AC
	2-Chloroethyl vinyl ether	< 10%	< 10%
	Tetrachloroethene	<ll but="">10%</ll>	<ll but="">10%</ll>

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
s the upper control limit (OL)	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
Citie lower control limit (EE) but > 10 %	Detect	J
< 10%	Non-detect	R
< 1076	Detect	J
Parent sample concentration > four times the MS/MSD	Detect	No Action
spiking solution concentration (D).	Non-detect	INO ACTION

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery		
	1,2-Dichloroethane				
SDG: 9082608 HLSF-0143-HMW-041-0809	1,1,1-Trichloroethane	< LL but > 10%			
HLSF-3839-HMW-029-0809	Carbon Tetrachloride	< LL but > 10% < LL but > 10%	< LL but > 10%		
HLSF-3839-HMW-033-0809 HLSF-3839-HMW-133-0809	1,1,1,2- Tetrachloroethane	< LL but > 10% < LL but > 10% < LL but > 10%	1		
HLSF-3839-HMW-032-0809 HLSF-0143-HMW-039-0809	Bromoform	< LL but > 10%			
HLSF-3839-HMW-035-0809	1,4-Dichlorobenzene				
HLSF-3839-HMW-034-0809 HLSF-3839-TB-09-000	Dibromomethane	AC	< LL but > 10%		
SDG: 9090808	Acetone	< LL but > 10%	AC		
HLSF-0154-DRW-016-0909 HLSF-0154-HCF-001-0909 HLSF-0154-DRW-005-0909 HLSF-0143-HMW-013-0909 HLSF-0143-HMW-036-0909 HLSF-0154-DRW-016-0909 HLSF-0154-DRW-004-0909 HLSF-0154-TB-09-0002	Terachloroethene	< LL but > 10%	AC		

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
> tile upper control iiiiii (OL)	Detect	J
4 the lower central limit (LL) but > 100/	Non-detect	UJ
< the lower control limit (LL) but > 10%	Detect	J
< 10%	Non-detect	R
< 1070	Detect	J

Note: Sample results were not qualified as rejected (R) due to the deviations listed above.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate was not collected with a sample location associated with this SDG.

7. Compound Identification

Compounds are identified on the GC/MS by laboratory personnel using the analytes relative retention time and ion spectra.

8. System Performance and Overall Assessment

Overall system performance was noted by the laboratory in the case narrative as acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Rep	orted		mance ptable	Not Required
	No	Yes	No	Yes	Required
GAS CHROMATOGRAPHY/MASS SPECTROME	TRY (GC/I	MS)			
Tier II Validation					
Holding times		Х		Х	
Reporting limits (units)		Х		Х	
Blanks					
A. Method blanks		Х	Х		
B. Equipment blanks					Х
C. Trip blanks		Х	Х	Х	
Laboratory Control Sample (LCS)		Х	Х		
Laboratory Control Sample Duplicate(LCSD)		Х	Х		
LCS/LCSD Precision (RPD)		Х		Х	
Matrix Spike (MS)		Х	Х		
Matrix Spike Duplicate(MSD)		Х	Х		
MS/MSD Precision (RPD)		Х		Х	
Field/Lab Duplicate (RPD)					Х
Surrogate Spike Recoveries		Х		Х	
Dilution Factor		Х		Х	
Moisture Content					Х

%RSD Relative standard deviation

%R RPD

Percent recovery
Relative percent difference
Percent difference

%D

VALIDATION PERFORMED BY: Mary Ann Doyle

SIGNATURE:

DATE: October 15, 2009

PEER REVIEW: Dennis Capria

DATE: October 19, 2009

CHAIN OF CUSTODY/ CORRECTED SAMPLE ANALYSIS DATA SHEETS

Report Date: September 4, 2009

Work Order: 9082608 HELSTF Semi-Annual Groundwater Page Number: 4 of 35

Analytical Report

Sample: 207800 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock Analysis: Volatiles

QC Batch: 62999
Prep Batch: 53764

Analytical Method: S & Date Analyzed: 200 Sample Preparation: 200

S 8260B 2009-08-27 2009-08-27 Prep Method: S 5030B Analyzed By: KB Prepared By: KB

SDLMQL Method Based Based MQL Blank MDL Parameter Flag Result Result Result Units Dilution SDL (Unadjusted) (Unadjusted) Bromochloromethane < 0.370 < 1.00 $< 0.370 \ \mu g/L$ 1 0.370 0.371 U Dichlorodifluoromethane $< 0.450 \ \mu g/L$ < 0.450 < 1.00 1 0.450 1 0.45UChloromethane (methyl chloride) < 0.590< 1.00 $< 0.590 \ \mu g/L$ 1 0.590 1 0.59U Vinyl Chloride < 0.690 < 1.00 $< 0.690 \mu g/L$ 1 0.690 1 0.69UBromomethane (methyl bromide) < 0.750 < 5.00 $< 0.750 \ \mu g/L$ 1 0.750 5 0.75U Chloroethane < 0.570 < 1.00 $< 0.570 \ \mu g/L$ 1 0.5701 0.57 \2, U Trichlorofluoromethane < 0.470 < 1.00 $< 0.470 \ \mu g/L$ 1 0.470 0.471 IIAcetone < 1.75 <10.0 $8.53 \mu g/L$ 1 10 1.75 1.75 UIodomethane (methyl iodide) < 0.320< 5.00 $< 0.320 \ \mu g/L$ 1 0.3205 0.32Carbon Disulfide < 0.250 < 1.00 $< 0.250 \ \mu g/L$ 0.250 0.25 1 1 UAcrylonitrile < 0.320 < 1.00 $< 0.320 \ \mu g/L$ 0.320 1 0.32Ί UB XXE 2-Butanone (MEK) 0.880< 5.00 $11.3 \mu g/L$ 5 1 0.810 0.81U4-Methyl-2-pentanone (MIBK) < 0.790< 5.00 $< 0.790 \mu g/L$ 1 0.7905 0.792-Hexanone < 0.510 < 5.00 $< 0.510 \ \mu g/L$ 1 0.510 5 0.51trans 1,4-Dichloro-2-butene < 0.490 < 10.0 $<0.490 \mu g/L$ 1 0.49010 0.491,1-Dichloroethene 3.79 3.79 $< 0.400 \mu g/L$ 1 0.4001 0.4Ü Methylene chloride < 0.450 < 5.00 $< 0.450 \ \mu g/L$ 1 0.4505 0.45 \bar{U} MTBE < 0.400 < 1.00 $< 0.400 \mu g/L$ 1 0.4001 0.4Ū trans-1,2-Dichloroethene < 0.330 < 1.00 $< 0.330 \ \mu g/L$ 1 0.3301 0.33J 1,1-Dichloroethane 0.890 < 1.00 $< 0.290 \mu g/L$ 1 0.2901 0.29cis-1,2-Dichloroethene < 0.200 < 1.00 $< 0.200 \mu g/L$ 1 0.2001 0.22.2-Dichloropropane < 0.420< 1.00 $< 0.420 \mu g/L$ 1 0.4201 0.42 $\chi_U J_{< 0.350}$ 1,2-Dichloroethane (EDC) < 1.00 $< 0.350 \mu g/L$ 1 0.3501 0.35Chloroform 1.14 1.14 $< 0.270 \mu g/L$ 1 0.2701 0.27¥ UJ<0.230 1,1,1-Trichloroethane < 1.00 $< 0.230 \ \mu g/L$ 1 0.2301 0.231,1-Dichloropropene < 0.340 < 1.00 $< 0.340 \mu g/L$ 1 0.34 1 0.340Benzene < 0.240< 1.00 $< 0.240 \ \mu g/L$ 1 0.2401 0.247 Uフ<0.300 Carbon Tetrachloride < 1.00 $< 0.300 \ \mu g/L$ 1 0.3001 0.31,2-Dichloropropane < 0.360 < 1.00 $< 0.360 \mu g/L$ 0.36 1 0.360 1 Trichloroethene (TCE) 118 118 $< 0.300 \mu g/L$ 0.300 1 1 0.3Dibromomethane (methylene bromide) \\ U\mathcal{J} < 0.470 < 1.00 $< 0.470 \ \mu g/L$ 1 0.4701 0.47

continued ...

¹Concentration biased low.

²Concentration biased low.

³Concentration biased high.

⁴Concentration biased low.

⁵Concentration biased low.

⁶Concentration biased low. ⁷Concentration biased low.

⁸Concentration biased low.

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sample 207800 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Bromodichloromethane	U	< 0.280	<1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
2-Chloroethyl vinyl ether	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
cis-1,3-Dichloropropene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
trans-1,3-Dichloropropene	U	< 0.380	<1.00	< 0.380	$\mu \mathrm{g}/\mathrm{L}$	1	0.380	1	0.38
Toluene	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
1,1,2-Trichloroethane	U	< 0.280	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
1,3-Dichloropropane	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
Dibromochloromethane	U	< 0.320	< 1.00	< 0.320		1	0.320	1	0.32
1,2-Dibromoethane (EDB)	U	< 0.340	< 1.00	< 0.340		1	0.340	1	0.34
Tetrachloroethene (PCE)	\mathfrak{g}_{J}	0.400	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1.	0.28
Chlorobenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
1,1,1,2-Tetrachloroethane	70 V	< 0.220	< 1.00	< 0.220	$\mu \mathrm{g/L}$	1	0.220	1	0.22
Ethylbenzene	U	< 0.260	<1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
m,p-Xylene	\sqrt{U}	< 0.540	<1.00	< 0.540		1	0.540	1	0.54
Bromoform	N U	$T_{< 0.230}$	< 1.00	< 0.230		1	0.230	1	0.23
Styrene	U	< 0.210	< 1.00	< 0.210		1	0.210	1	0.21
o-Xylene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
1,1,2,2-Tetrachloroethane	U	< 0.420	< 1.00	< 0.420		1	0.420	1	0.42
2-Chlorotoluene	U	< 0.240	< 1.00	< 0.240	$\mu \mathrm{g/L}$	1	0.240	1	0.24
1,2,3-Trichloropropane	U	< 0.430	< 1.00	< 0.430		1	0.430	1	0.43
Isopropylbenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
Bromobenzene	U	< 0.260	< 1.00	< 0.260	$\mu g/L$	1	0.260	1	0.26
n-Propylbenzene	U	< 0.310	< 1.00	< 0.310		1	0.310	1	0.31
1,3,5-Trimethylbenzene	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
tert-Butylbenzene	U	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2,4-Trimethylbenzene	U	< 0.290	< 1.00	< 0.290		1	0.290	1	0.29
1,4-Dichlorobenzene (para)	15 00	< 0.240	< 1.00	< 0.240		1	0.240	1	0.24
sec-Butylbenzene	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
1,3-Dichlorobenzene (meta)	U	< 0.310	< 1.00	< 0.310		1	0.310	1	0.31
p-Isopropyltoluene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
4-Chlorotoluene	U	< 0.290	< 1.00	< 0.290		1	0.290	1	0.29
1,2-Dichlorobenzene (ortho)	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
n-Butylbenzene	\sqrt{U}	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2-Dibromo-3-chloropropane	ोह् ए	< 0.680	< 5.00	< 0.680		1	0.680	5	0.68
1,2,3-Trichlorobenzene	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
1,2,4-Trichlorobenzene	U	< 0.340	< 5.00	< 0.340		1	0.340	5	0.34
Naphthalene	U	< 0.280	< 5.00	< 0.280		1	0.280	5	0.28
Hexachlorobutadiene	U	< 0.540	< 5.00	< 0.540		1	0.540	5	0.54

⁹Concentration biased low. ¹⁰Concentration biased low. ¹¹Concentration biased low. ¹²Concentration biased low. ¹³Concentration biased low.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.8	$\mu { m g/L}$	1	50.0	100	75.3 - 131
Toluene-d8		54.1	$\mu { m g}/{ m L}$	1	50.0	108	91.4 - 112
4-Bromofluorobenzene (4-BFB)		50.1	$\mu { m g}/{ m L}$	1	50.0	100	83.8 - 108

Sample: 207801 - HLSF-3839-HMW-029-0809

Laboratory: Lubbock Analysis: Volatiles

QC Batch: 62999 Prep Batch: 53764

Analytical Method: Date Analyzed:

S 8260B 2009-08-27 Sample Preparation: 2009-08-27 Prep Method: S 5030B Analyzed By: KB Prepared By: KB

SDL MQL Method Based Based Blank MQL MDL Flag Parameter Result Units Dilution SDL (Unadjusted) (Unadjusted) Result Result Bromochloromethane < 0.370 < 1.00 $< 0.370 \ \mu g/L$ 0.370 0.371 1 $\mathcal{N} U$ Dichlorodifluoromethane < 0.450 < 1.00 $< 0.450 \mu g/L$ 0.4501 0.451 U Chloromethane (methyl chloride) < 0.590 < 1.00 < 0.590 $\mu g/L$ 1 0.590 1 0.59UVinyl Chloride < 0.690 < 1.00 < 0.690 $\mu g/L$ 1 0.690 1 0.69UBromomethane (methyl bromide) < 0.750 < 5.00 $< 0.750 \mu g/L$ 1 0.7505 0.75 \bar{U} Chloroethane < 0.570 < 1.00 $< 0.570 \ \mu g/L$ 1 0.570 1 0.57 No U Trichlorofluoromethane < 0.470 < 1.00 $< 0.470 \ \mu g/L$ 1 0.470 1 0.47 U Acetone <1.75 <10.0 $8.53 \mu g/L$ 1 1.75 10 1.75 U Iodomethane (methyl iodide) < 0.320 < 5.00 $< 0.320 \mu g/L$ 1 0.320 5 0.32 UCarbon Disulfide < 0.250 < 1.00 $< 0.250 \mu g/L$ 1 0.250 1 0.25UAcrylonitrile < 0.320 < 1.00 $< 0.320 \ \mu g/L$ 1 0.320 1 0.32 No U 2-Butanone (MEK) < 0.810 < 5.00 $11.3 \mu g/L$ 1 0.810 5 0.81U4-Methyl-2-pentanone (MIBK) < 0.790 < 5.00 $< 0.790 \mu g/L$ 1 0.7905 0.79U2-Hexanone $< 0.510 \ \mu {\rm g/L}$ < 0.510 < 5.00 1 0.510 5 0.51N U trans 1,4-Dichloro-2-butene < 0.490 < 10.0 $<0.490 \mu g/L$ 1 0.490 10 0.49U1,1-Dichloroethene < 0.400 < 1.00 $< 0.400 \mu g/L$ 1 0.4001 0.4UMethylene chloride < 0.450 < 5.00 $< 0.450 \mu g/L$ 0.450 5 0.451 UMTBE < 0.400 < 1.00 $< 0.400 \mu g/L$ 0.4001 0.41 Utrans-1,2-Dichloroethene < 0.330 < 1.00 $< 0.330 \ \mu g/L$ 1 0.330 1 0.33 U1,1-Dichloroethane < 0.290 < 1.00 $< 0.290 \mu g/L$ 1 0.290 1 0.29Ucis-1,2-Dichloroethene < 0.200 < 1.00 $< 0.200 \mu g/L$ Ï 0.200 1 0.2 U< 0.420 < 1.00 2,2-Dichloropropane $< 0.420 \mu g/L$ 1 0.420 1 0.42**№** UJ < 0.350 < 1.00 1,2-Dichloroethane (EDC) $< 0.350 \ \mu g/L$ 1 0.3501 0.35 UChloroform < 0.270 < 1.00 $<0.270 \mu g/L$ 1 0.270 1 0.27₩ UJ<0.230 1,1,1-Trichloroethane < 1.00 $< 0.230 \ \mu g/L$ 1 0.230 1 0.23 U1,1-Dichloropropene < 0.340 < 1.00 $< 0.340 \ \mu g/L$ 1 0.340 1 0.34Benzene < 0.240 < 1.00 $< 0.240 \ \mu g/L$ 1 0.2401 0.24

¹⁴Concentration biased low.

¹⁵Concentration biased low.

¹⁶Concentration biased high.

¹⁷Concentration biased low.

¹⁸Concentration biased low.

¹⁹Concentration biased low.

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 $sample~207801~continued~\dots$

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag				Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Carbon Tetrachloride	20 Ú	T<0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2-Dichloropropane	U	< 0.360	< 1.00	< 0.360	μg/L	1	0.360	1	0.36
Trichloroethene (TCE)	U	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
Dibromomethane (methylene bromide)	23. U	J < 0.470	<1.00	< 0.470		1	0.470	1	0.47
Bromodichloromethane	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
2-Chloroethyl vinyl ether	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
cis-1,3-Dichloropropene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
trans-1,3-Dichloropropene	U	< 0.380	< 1.00	< 0.380		1	0.380	1	0.38
Toluene	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
1,1,2-Trichloroethane	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
1,3-Dichloropropane	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
Dibromochloromethane	U	< 0.320	< 1.00	< 0.320		1	0.320	1	0.32
1,2-Dibromoethane (EDB)	∇U	< 0.340	< 1.00	< 0.340		1	0.340	1	0.34
Tetrachloroethene (PCE)	32 U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
Chlorobenzene	$\setminus U$	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
1,1,1,2-Tetrachloroethane	∆ 3 U	< 0.220	< 1.00	< 0.220		1	0.220	1	0.22
Ethylbenzene	Ù	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
m,p-Xylene	U	< 0.540	<1.00	< 0.540		1	0.540	1	0.54
Bromoform	M U	T<0.230	< 1.00	< 0.230		1	0.230	1	0.23
Styrene	U	< 0.210	< 1.00	< 0.210		1	0.210	1	0.21
o-Xylene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
1,1,2,2-Tetrachloroethane	U	< 0.420	< 1.00	< 0.420		1	0.420	I	0.42
2-Chlorotoluene	U	< 0.240	< 1.00	< 0.240		1	0.240	1	0.24
1,2,3-Trichloropropane	U	< 0.430	< 1.00	< 0.430		1	0.430	1	0.43
Isopropylbenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
Bromobenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
n-Propylbenzene	U	< 0.310	< 1.00	< 0.310		1	0.310	1.	0.31
1,3,5-Trimethylbenzene	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
tert-Butylbenzene	U	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2,4-Trimethylbenzene	. U _	< 0.290	< 1.00	< 0.290		1	0.290	1	0.29
1,4-Dichlorobenzene (para)	25 U	$J_{< 0.240}$	< 1.00	< 0.240	$\mu \mathrm{g}/\mathrm{L}$	1	0.240	1	0.24
sec-Butylbenzene	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
1,3-Dichlorobenzene (meta)	U	< 0.310	< 1.00	< 0.310		1	0.310	1	0.31
p-Isopropyltoluene	U	< 0.330	< 1.00	< 0.330	$\mu { m g}/{ m L}$	1	0.330	1	0.33
4-Chlorotoluene	U	< 0.290	< 1.00	< 0.290		1.	0.290	1	0.29
1,2-Dichlorobenzene (ortho)	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
n-Butylbenzene	U	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2-Dibromo-3-chloropropane	36 U	< 0.680	< 5.00	< 0.680		1	0.680	5	0.68
1,2,3-Trichlorobenzene	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33

continued ...

 ²⁰Concentration biased low.
 ²¹Concentration biased low.
 ²²Concentration biased low.
 ²³Concentration biased low.
 ²⁴Concentration biased low.
 ²⁵Concentration biased low.
 ²⁶Concentration biased low.

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sample 207801 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
1,2,4-Trichlorobenzene	\overline{U}	< 0.340	< 5.00	< 0.340	$\mu \mathrm{g/L}$	1	0.340	5	0.34
Naphthalene	U	< 0.280	< 5.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	5	0.28
Hexachlorobutadiene	U	< 0.540	< 5.00	< 0.540	$\mu { m g}/{ m L}$	1	0.540	5	0.54

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.0	μg/L	1	50.0	100	75.3 - 131
Toluene-d8		52.5	$\mu { m g}/{ m L}$	1	50.0	105	91.4 - 112
4-Bromofluorobenzene (4-BFB)		49.2	$\mu { m g}/{ m L}$	1	50.0	98	83.8 - 108

Sample: 207802 - HLSF-3839-HMW-033-0809

Laboratory:	Lubbock
Analysis:	Volatiles

QC Batch: 62999 Prep Batch: 53764

Analytical Method: S 8260B Date Analyzed: 2009-08-27

Prep Method: S 5030B Analyzed By: KB Sample Preparation: 2009-08-27 Prepared By:

		-						- "	
		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Bromochloromethane	\overline{v}	< 0.370	<1.00	< 0.370	$\mu g/L$	1	0.370	1	0.37
Dichlorodifluoromethane	X7 U	< 0.450	<1.00	< 0.450		1	0.450	1	0.45
Chloromethane (methyl chloride)	U	< 0.590	< 1.00	< 0.590		1	0.590	1	0.59
Vinyl Chloride	U	< 0.690	< 1.00	< 0.690		1	0.690	1	0.69
Bromomethane (methyl bromide)	U	< 0.750	< 5.00	< 0.750		1	0.750	5	0.75
Chloroethane	U	< 0.570	< 1.00	< 0.570		1	0.570	1	0.57
Trichlorofluoromethane	38 U	< 0.470	< 1.00	< 0.470		1	0.470	1	0.47
Acetone	U	< 1.75	<10.0		$\mu \mathrm{g/L}$	1	1.75	10	1.75
Iodomethane (methyl iodide)	U	< 0.320	< 5.00	< 0.320		1	0.320	5	0.32
Carbon Disulfide	U	< 0.250	<1.00	< 0.250		1	0.250	1	0.25
Acrylonitrile	U	< 0.320	< 1.00	< 0.320		1	0.320	1	0.32
2-Butanone (MEK)	736 N	< 0.810	< 5.00		$\mu \mathrm{g}/\mathrm{L}$	1	0.810	5	0.81
4-Methyl-2-pentanone (MIBK)	U	< 0.790	< 5.00	< 0.790		1	0.790	5	0.79
2-Hexanone	\mathbf{v}^{U}	< 0.510	< 5.00	< 0.510		1	0.510	5	0.51
trans 1,4-Dichloro-2-butene	80 U	< 0.490	<10.0	< 0.490		1	0.490	10	0.49
1,1-Dichloroethene		4.15	4.15	< 0.400		1	0.400	1	0.4
Methylene chloride	U	< 0.450	< 5.00	< 0.450		1	0.450	5	0.45
MTBE	U	< 0.400	< 1.00	< 0.400		1	0.400	1	0.4
trans-1,2-Dichloroethene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
1,1-Dichloroethane	U	< 0.290	<1.00	< 0.290		1	0.290	1	0.29

²⁷Concentration biased low.

Concentration biased low.
 Concentration biased low.
 Concentration biased high.
 Concentration biased low.

sample 207802 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
cis-1,2-Dichloroethene	U	< 0.200	<1.00	< 0.200		1	0.200	1	0.2
2,2-Dichloropropane	U	< 0.420	< 1.00	< 0.420		1	0.420	1	0.42
1,2-Dichloroethane (EDC)	34 U	$J_{< 0.350}$	< 1.00	< 0.350		1	0.350	1	0.35
Chloroform	\	1.36	1.36	< 0.270		1	0.270	1	0.27
1,1,1-Trichloroethane	3Q U.	T<0.230	< 1.00	< 0.230		1	0.230	1	0.23
1,1-Dichloropropene	U	< 0.340	< 1.00	< 0.340		1	0.340	1	0.34
Benzene	U	< 0.240	< 1.00	< 0.240		1	0.240	1	0.24
Carbon Tetrachloride	83 U.	T<0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2-Dichloropropane	U	< 0.360	< 1.00	< 0.360		1	0.360	1	0.36
Trichloroethene (TCE)	•	4.75	4.75	< 0.300		1	0.300	1	0.3
Dibromomethane (methylene bromide)	34 U	T<0.470	< 1.00	< 0.470		1	0.470	1	0.47
Bromodichloromethane	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
2-Chloroethyl vinyl ether	U	< 0.330	< 5.00	< 0.330	$\mu \mathrm{g}/\mathrm{L}$	1	0.330	5	0.33
cis-1,3-Dichloropropene	U	< 0.330	< 1.00	< 0.330	$\mu \mathrm{g/L}$	1	0.330	1	0.33
trans-1,3-Dichloropropene	U	< 0.380	< 1.00	< 0.380	$\mu \mathrm{g}/\mathrm{L}$	1	0.380	1	0.38
Toluene	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
1,1,2-Trichloroethane	U	< 0.280	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
1,3-Dichloropropane	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
Dibromochloromethane	U	< 0.320	< 1.00	< 0.320		1	0.320	1	0.32
1,2-Dibromoethane (EDB)	$\bigcup_{i \in I} U_i$	< 0.340	< 1.00	< 0.340		1.	0.340	1	0.34
Tetrachloroethene (PCE)	35 J	0.430	< 1.00	< 0.280		1	0.280	1	0.28
Chlorobenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
1,1,1,2-Tetrachloroethane	36 U	< 0.220	< 1.00	< 0.220		1	0.220	1	0.22
Ethylbenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
m,p-Xylene	U	< 0.540	< 1.00	< 0.540		1	0.540	1	0.54
Bromoform	34 UJ	< 0.230	< 1.00	< 0.230		1	0.230	1	0.23
Styrene	U	< 0.210	< 1.00	< 0.210		1	0.210	1	0.21
o-Xylene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
1,1,2,2-Tetrachloroethane	U	< 0.420	< 1.00	< 0.420		1	0.420	1	0.42
2-Chlorotoluene	U	< 0.240	< 1.00	< 0.240		1	0.240	1	0.24
1,2,3-Trichloropropane	U	< 0.430	< 1.00	< 0.430		1	0.430	1	0.43
Isopropylbenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
Bromobenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
n-Propylbenzene	U	< 0.310	< 1.00	< 0.310		1	0.310	1	0.31
1,3,5-Trimethylbenzene	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
tert-Butylbenzene	U	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2,4-Trimethylbenzene	U	< 0.290	< 1.00	< 0.290		1	0.290	1	0.29
1,4-Dichlorobenzene (para)	38 0	< 0.240	<1.00	< 0.240	$\mu { m g}/{ m L}$	1	0.240	1	0.24

³¹Concentration biased low. ³²Concentration biased low. ³³Concentration biased low. ³⁴Concentration biased low. ³⁵Concentration biased low. ³⁶Concentration biased low. ³⁷Concentration biased low.

³⁸Concentration biased low.

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sample 207802 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
sec-Butylbenzene	U	< 0.280	<1.00	< 0.280	$\mu g/L$	1	0.280	1	0.28
1,3-Dichlorobenzene (meta)	U	< 0.310	< 1.00	< 0.310	$\mu \mathrm{g/L}$	1	0.310	1	0.31
p-Isopropyltoluene	U	< 0.330	< 1.00	< 0.330	$\mu \mathrm{g/L}$	1	0.330	1	0.33
4-Chlorotoluene	U	< 0.290	< 1.00	< 0.290	$\mu \mathrm{g/L}$	1	0.290	1	0.29
1,2-Dichlorobenzene (ortho)	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
n-Butylbenzene	\mathcal{L}^U	< 0.300	< 1.00	< 0.300	$\mu \mathrm{g/L}$	1	0.300	1	0.3
1,2-Dibromo-3-chloropropane	89 U	< 0.680	< 5.00	< 0.680	$\mu g/L$	1	0.680	5	0.68
1,2,3-Trichlorobenzene	U	< 0.330	< 5.00	< 0.330	$\mu g/L$	1	0.330	5	0.33
1,2,4-Trichlorobenzene	U	< 0.340	< 5.00	< 0.340	$\mu \mathrm{g}/\mathrm{L}$	1	0.340	5	0.34
Naphthalene	U	< 0.280	< 5.00	< 0.280	$\mu g/L$	1	0.280	5	0.28
Hexachlorobutadiene	U	< 0.540	< 5.00	< 0.540	$\mu \mathrm{g}/\mathrm{L}$	1	0.540	5	0.54

_					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		49.2	$\mu { m g/L}$	1	50.0	98	75.3 - 131
Toluene-d8		52.8	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	106	91.4 - 112
4-Bromofluorobenzene (4-BFB)		48.9	$\mu { m g/L}$	1	50.0	98	83.8 - 108

Sample: 207803 - HLSF-3839-HMW-133-0809

1	_aboratory:	Lubbock				
A	Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
(QC Batch:	62999	Date Analyzed:	2009-08-27	Analyzed By:	KB
Ŧ	Prep Batch:	53764	Sample Preparation:	2009-08-27	Prepared By:	KB

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Bromochloromethane	$\overline{}$	< 0.370	<1.00	< 0.370	μg/L	1	0.370	1	0.37
Dichlorodifluoromethane	3 η υ	< 0.450	< 1.00	< 0.450	$\mu \mathrm{g/L}$	1	0.450	1	0.45
Chloromethane (methyl chloride)	U	< 0.590	<1.00	< 0.590	$\mu g/L$	1	0.590	1	0.59
Vinyl Chloride	U	< 0.690	< 1.00	< 0.690	$\mu \mathrm{g/L}$	1	0.690	1	0.69
Bromomethane (methyl bromide)	U	< 0.750	< 5.00	< 0.750	$\mu g/L$	1	0.750	5	0.75
Chloroethane	\sqrt{U}	< 0.570	< 1.00	< 0.570	$\mu \mathrm{g/L}$	1	0.570	1	0.57
Trichlorofluoromethane	XI U	< 0.470	< 1.00	< 0.470	$\mu \mathrm{g/L}$	1	0.470	1	0.47
Acetone	U	< 1.75	< 10.0	8.53	$\mu \mathrm{g/L}$	1	1.75	10	1.75
Iodomethane (methyl iodide)	U	< 0.320	< 5.00	< 0.320	$\mu \mathrm{g/L}$	1	0.320	5	0.32
Carbon Disulfide	U	< 0.250	< 1.00	< 0.250	$\mu \mathrm{g/L}$	1	0.250	1	0.25
Acrylonitrile	U	< 0.320	<1.00	< 0.320	$\mu g/L$	1	0.320	1	0.32
2-Butanone (MEK)	\ 12 <i>U</i>	< 0.810	< 5.00	11.3	$\mu { m g}/{ m L}$	1	0.810	5	0.81

continued ...

Goncentration biased low.
 Concentration biased low.
 Concentration biased low.
 Concentration biased high.

sample 207803 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
4-Methyl-2-pentanone (MIBK)	\overline{U}	< 0.790	< 5.00	< 0.790		1	0.790	5	0.79
2-Hexanone	$\bigcup_{i} U_{i}$	< 0.510	< 5.00	< 0.510	$\mu \mathrm{g/L}$	1	0.510	5	0.51
trans 1,4-Dichloro-2-butene	X3 U	< 0.490	<10.0	< 0.490	$\mu \mathrm{g/L}$	1	0.490	10	0.49
1,1-Dichloroethene	Ţ,	4.26	4.26	< 0.400	$\mu { m g}/{ m L}$	1	0.400	1	0.4
Methylene chloride	U	< 0.450	< 5.00	< 0.450	$\mu { m g/L}$	1	0.450	5	0.45
MTBE	U	< 0.400	< 1.00	< 0.400	$\mu { m g/L}$	1	0.400	1	0.4
trans-1,2-Dichloroethene	U	< 0.330	< 1.00	< 0.330	$\mu { m g}/{ m L}$	1	0.330	1	0.33
1,1-Dichloroethane	U	< 0.290	<1.00	< 0.290	$\mu \mathrm{g/L}$	1	0.290	1	0.29
cis-1,2-Dichloroethene	U	< 0.200	< 1.00	< 0.200	$\mu { m g}/{ m L}$	1	0.200	1	0.2
2,2-Dichloropropane	\mathcal{L}^U .	< 0.420	< 1.00	< 0.420	$\mu \mathrm{g/L}$	1	0.420	1	0.42
1,2-Dichloroethane (EDC)	34 07	⁷ <0.350	< 1.00	< 0.350	$\mu \mathrm{g/L}$	1	0.350	1	0.35
Chloroform		1.35	1.35	< 0.270	$\mu { m g/L}$	1	0.270	1	0.27
1,1,1-Trichloroethane	45€ U,	(0.230	< 1.00	< 0.230	$\mu { m g/L}$	1	0.230	1	0.23
1,1-Dichloropropene	U	< 0.340	< 1.00	< 0.340	$\mu \mathrm{g/L}$	1	0.340	1	0.34
Benzene	$\bigcup_{i=1}^{U}$	< 0.240	< 1.00	< 0.240	$\mu \mathrm{g/L}$	1	0.240	1	0.24
Carbon Tetrachloride	36 U₹	T<0.300	< 1.00	< 0.300	$\mu \mathrm{g/L}$	1	0.300	1	0.3
1,2-Dichloropropane	U	< 0.360	< 1.00	< 0.360	$\mu \mathrm{g/L}$	1	0.360	1	0.36
Trichloroethene (TCE)	_	_ 4.85	4.85	< 0.300	$\mu \mathrm{g/L}$	1.	0.300	1	0.3
Dibromomethane (methylene bromide)	AX, UX	<0.470	< 1.00	< 0.470	$\mu \mathrm{g/L}$	1	0.470	I	0.47
Bromodichloromethane	U	< 0.280	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1.	0.280	1	0.28
2-Chloroethyl vinyl ether	U	< 0.330	< 5.00	< 0.330	$\mu \mathrm{g/L}$	1	0.330	5	0.33
cis-1,3-Dichloropropene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
trans-1,3-Dichloropropene	U	< 0.380	< 1.00	< 0.380	$\mu \mathrm{g/L}$	1	0.380	1	0.38
Toluene	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
1,1,2-Trichloroethane	U	< 0.280	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
1,3-Dichloropropane	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g}/\mathrm{L}$	1	0.270	1	0.27
Dibromochloromethane	U	< 0.320	< 1.00	< 0.320	$\mu \mathrm{g/L}$	1	0.320	1	0.32
1,2-Dibromoethane (EDB)	\setminus^U	< 0.340	< 1.00	< 0.340	$\mu \mathrm{g/L}$	1	0.340	1	0.34
Tetrachloroethene (PCE)	नेद्ध U	< 0.280	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
Chlorobenzene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
1,1,1,2-Tetrachloroethane	₹9 U	< 0.220	< 1.00	< 0.220	$\mu \mathrm{g/L}$	1	0.220	1	0.22
Ethylbenzene	U	< 0.260	< 1.00	< 0.260	$\mu { m g}/{ m L}$	1	0.260	1	0.26
m,p-Xylene	_ U _	< 0.540	< 1.00	< 0.540	$\mu \mathrm{g/L}$	1	0.540	1	0.54
Bromoform	20 n	< 0.230	< 1.00	< 0.230	$\mu \mathrm{g/L}$	1	0.230	1	0.23
·Styrene	U	< 0.210	< 1.00	< 0.210	$\mu \mathrm{g/L}$	1	0.210	1	0.21
o-Xylene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
1,1,2,2-Tetrachloroethane	U	< 0.420	< 1.00	< 0.420		1	0.420	1	0.42
2-Chlorotoluene	U	< 0.240	<1.00	< 0.240	$\mu { m g}/{ m L}$	1	0.240	1	0.24

⁴³Concentration biased low. ⁴⁴Concentration biased low. ⁴⁵Concentration biased low. ⁴⁶Concentration biased low. ⁴⁷Concentration biased low. ⁴⁸Concentration biased low. ⁴⁹Concentration biased low. ⁵⁰Concentration biased low.

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sample 207803 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
1,2,3-Trichloropropane	U	< 0.430	<1.00	< 0.430	$\mu { m g/L}$	1	0.430	1	0.43
Isopropylbenzene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
Bromobenzene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
n-Propylbenzene	U	< 0.310	< 1.00	< 0.310	$\mu \mathrm{g/L}$	1	0.310	1	0.31
1,3,5-Trimethylbenzene	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
tert-Butylbenzene	U	< 0.300	< 1.00	< 0.300	$\mu \mathrm{g/L}$	1	0.300	1	0.3
1,2,4-Trimethylbenzene	$\sim U$	< 0.290	< 1.00	< 0.290	$\mu g/L$	1	0.290	1	0.29
1,4-Dichlorobenzene (para)	DH_U_	$\tau_{< 0.240}$	<1.00	< 0.240	$\mu \mathrm{g/L}$	1	0.240	1	0.24
sec-Butylbenzene	U	< 0.280	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
1,3-Dichlorobenzene (meta)	U	< 0.310	< 1.00	< 0.310	$\mu \mathrm{g/L}$	1	0.310	1	0.31
p-Isopropyltoluene	v	< 0.330	< 1.00	< 0.330	$\mu \mathrm{g/L}$	1	0.330	1	0.33
4-Chlorotoluene	U	< 0.290	< 1.00	< 0.290	$\mu \mathrm{g/L}$	1	0.290	1	0.29
1,2-Dichlorobenzene (ortho)	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
n-Butylbenzene	$\bigcup U$	< 0.300	< 1.00	< 0.300	$\mu \mathrm{g/L}$	1	0.300	1	0.3
1,2-Dibromo-3-chloropropane	3Q U	< 0.680	< 5.00	< 0.680	$\mu \mathrm{g/L}$	1	0.680	5	0.68
1,2,3-Trichlorobenzene	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
1,2,4-Trichlorobenzene	U	< 0.340	< 5.00	< 0.340	$\mu \mathrm{g/L}$	1	0.340	5	0.34
Naphthalene	U	< 0.280	< 5.00	< 0.280	$\mu \mathrm{g}/\mathrm{L}$	1	0.280	5	0.28
Hexachlorobutadiene	U	< 0.540	< 5.00	< 0.540		1	0.540	5	0.54

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		51.5	$\mu \mathrm{g/L}$	1	50.0	103	75.3 - 131
Toluene-d8		52.9	$\mu { m g}/{ m L}$	1	50.0	106	91.4 - 112
4-Bromofluorobenzene (4-BFB)		49.2	$\mu { m g}/{ m L}$	1	50.0	98	83.8 - 108

Sample: 207804 - HLSF-3839-HMW-032-0809

Laboratory: Lubbock Analysis: Volatiles QC Batch: 62999 Prep Batch: 53764	Dat	alytical N se Analyz aple Prej	zed:	S 8260 2009-0 : 2009-0)8-27			Prep Metho Analyzed By Prepared By	: KB
		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Bromochloromethane	_U	< 0.370	<1.00	< 0.370	$\mu g/L$	1	0.370	1	0.37
Dichlorodifluoromethane	Ng U	< 0.450	< 1.00	< 0.450	$\mu \mathrm{g/L}$	1	0.450	1	0.45
Chloromethane (methyl chloride)	U	< 0.590	< 1.00	< 0.590	$\mu g/L$	1	0.590	1	0.59
Vinyl Chloride	U	< 0.690	< 1.00	< 0.690	$\mu \mathrm{g/L}$	1	0.690	1	0.69
Bromomethane (methyl bromide)	U	< 0.750	< 5.00	< 0.750	$\mu { m g/L}$	1	0.750	5	0.75

continued ...

 ⁵¹Concentration biased low.
 ⁵²Concentration biased low.
 ⁵³Concentration biased low.

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sample 207804 continued ...

		SDL	MQL	Method					
		Based		Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL		(Unadjusted)
Chloroethane	U	< 0.570	<1.00	< 0.570	$\mu g/L$	1	0.570	1	0.57
Trichlorofluoromethane	54 <i>U</i>	< 0.470	< 1.00	< 0.470		1	0.470	1	0.47
Acetone	U	<1.75	<10.0		$\mu { m g/L}$	1	1.75	10	1.75
Iodomethane (methyl iodide)	U	< 0.320	< 5.00	< 0.320		1	0.320	5	0.32
Carbon Disulfide	U	< 0.250	< 1.00	< 0.250		1	0.250	1	0.25
Acrylonitrile	\mathcal{U}	< 0.320	< 1.00	< 0.320	$\mu \mathrm{g/L}$	1	0.320	1	0.32
2-Butanone (MEK)	∂ ₹ U	< 0.810	< 5.00		$\mu { m g/L}$	1	0.810	5	0.81
4-Methyl-2-pentanone (MIBK)	U	< 0.790	< 5.00	< 0.790	$\mu \mathrm{g/L}$	1	0.790	5	0.79
2-Hexanone	$\setminus U$	< 0.510	< 5.00	< 0.510	$\mu \mathrm{g/L}$	1	0.510	5	0.51
trans 1,4-Dichloro-2-butene	36 U	< 0.490	<10.0	< 0.490	$\mu \mathrm{g/L}$	1	0.490	10	0.49
1,1-Dichloroethene	U	< 0.400	< 1.00	< 0.400	$\mu \mathrm{g/L}$	1	0.400	1	0.4
Methylene chloride	U	< 0.450	< 5.00	< 0.450	$\mu \mathrm{g/L}$	1	0.450	5	0.45
MTBE	U	< 0.400	<1.00	< 0.400	$\mu \mathrm{g/L}$	1	0.400	1	0.4
trans-1,2-Dichloroethene	U	< 0.330	< 1.00	< 0.330	$\mu { m g/L}$	1	0.330	1	0.33
1,1-Dichloroethane	U	< 0.290	< 1.00	< 0.290	$\mu { m g/L}$	1	0.290	1	0.29
cis-1,2-Dichloroethene	U	< 0.200	< 1.00	< 0.200	$\mu { m g}/{ m L}$	1	0.200	1	0.2
2,2-Dichloropropane	$\setminus U$	< 0.420	< 1.00	< 0.420	$\mu \mathrm{g/L}$	1	0.420	1	0.42
1,2-Dichloroethane (EDC)	$\mathfrak{R}_{\mathcal{C}}U_{\mathcal{C}}$	7<0.350	< 1.00	< 0.350	$\mu \mathrm{g/L}$	1	0.350	1	0.35
Chloroform	\mathcal{U}	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
1,1,1-Trichloroethane	38 U €	< 0.230	< 1.00	< 0.230	$\mu \mathrm{g/L}$	1	0.230	1	0.23
1,1-Dichloropropene	U	< 0.340	< 1.00	< 0.340	$\mu \mathrm{g/L}$	1	0.340	1	0.34
Benzene	$\bigcup_{i \in \mathcal{U}} U_i$	< 0.240	< 1.00	< 0.240	$\mu \mathrm{g/L}$	1	0.240	1	0.24
Carbon Tetrachloride		T<0.300	< 1.00	< 0.300	$\mu { m g}/{ m L}$	1	0.300	1	0.3
1,2-Dichloropropane	U	< 0.360	< 1.00	< 0.360	$\mu { m g/L}$	1	0.360	1	0.36
Trichloroethene (TCE)	U	< 0.300	< 1.00	< 0.300	$\mu \mathrm{g/L}$	1	0.300	1	0.3
Dibromomethane (methylene bromide		< 0.470	< 1.00	< 0.470	$\mu \mathrm{g/L}$	1	0.470	1	0.47
Bromodichloromethane	U	< 0.280	<1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
2-Chloroethyl vinyl ether	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
cis-1,3-Dichloropropene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
trans-1,3-Dichloropropene	U	< 0.380	< 1.00	< 0.380	$\mu \mathrm{g/L}$	1	0.380	1	0.38
. Toluene	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
1,1,2-Trichloroethane	U	< 0.280	<1.00	< 0.280	$\mu \mathrm{g}/\mathrm{L}$	1	0.280	1	0.28
1,3-Dichloropropane	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
Dibromochloromethane	U	< 0.320	< 1.00	< 0.320		1	0.320	1	0.32
1,2-Dibromoethane (EDB)	$\setminus v$	< 0.340	< 1.00	< 0.340		1	0.340	1	0.34
Tetrachloroethene (PCE)	81 U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
Chlorobenzene	U	< 0.260	<1.00	< 0.260		1	0.260	1	0.26

⁵⁴Concentration biased low.

⁵⁴Concentration biased low. ⁵⁵Concentration biased high. ⁵⁶Concentration biased low. ⁵⁷Concentration biased low. ⁵⁸Concentration biased low. ⁶⁰Concentration biased low. ⁶⁰Concentration biased low.

sample 207804 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL		(Unadjusted)
1,1,1,2-Tetrachloroethane	95.0	< 0.220	<1.00	< 0.220	$\mu g/L$	1	0.220	1	0.22
Ethylbenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
m,p-Xylene	U	< 0.540	< 1.00	< 0.540		1	0.540	1	0.54
Bromoform	g3 U;	J < 0.230	< 1.00	< 0.230		1	0.230	1	0.23
Styrene	\boldsymbol{v}	< 0.210	< 1.00	< 0.210	$\mu \mathrm{g}/\mathrm{L}$	1	0.210	1	0.21
o-Xylene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g}/\mathrm{L}$	1	0.260	1	0.26
1,1,2,2-Tetrachloroethane	U	< 0.420	< 1.00	< 0.420		1	0.420	1	0.42
2-Chlorotoluene	U	< 0.240	< 1.00	< 0.240		1	0.240	1	0.24
1,2,3-Trichloropropane	U	< 0.430	< 1.00	< 0.430		1	0.430	1	0.43
Isopropylbenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
Bromobenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
n-Propylbenzene	U	< 0.310	<1.00	< 0.310	$\mu \mathrm{g/L}$	1	0.310	1	0.31
1,3,5-Trimethylbenzene	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
tert-Butylbenzene	U	< 0.300	< 1.00	< 0.300	$\mu \mathrm{g/L}$	1	0.300	1	0.3
1,2,4-Trimethylbenzene	U	_<0.290	< 1.00	< 0.290		1	0.290	1	0.29
1,4-Dichlorobenzene (para)	~ 64 U	<0.240	< 1.00	< 0.240		1	0.240	1	0.24
sec-Butylbenzene	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
1,3-Dichlorobenzene (meta)	U	< 0.310	< 1.00	< 0.310	$\mu \mathrm{g/L}$	1	0.310	1	0.31
p-Isopropyltoluene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
4-Chlorotoluene	U	< 0.290	<1.00	< 0.290		1	0.290	1	0.29
1,2-Dichlorobenzene (ortho)	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
n-Butylbenzene	\setminus^{v}	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2-Dibromo-3-chloropropane	D in	< 0.680	< 5.00	< 0.680		1	0.680	5	0.68
1,2,3-Trichlorobenzene	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
1,2,4-Trichlorobenzene	U	< 0.340	< 5.00	< 0.340		1	0.340	5	0.34
Naphthalene	U	< 0.280	< 5.00	< 0.280		1	0.280	5	0.28
Hexachlorobutadiene	U	< 0.540	< 5.00	< 0.540		1	0.540	5	0.54

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.4	μg/L	1	50.0	103	75.3 - 131
Toluene-d8		52.6	$\mu { m g}/{ m L}$	1	50.0	105	91.4 - 112
4-Bromofluorobenzene (4-BFB)		49.8	$\mu { m g/L}$	1	50.0	100	83.8 - 108

Sample: 207805 - HLSF-0143-HMW-039-0809

Laboratory: Lubbock

Analysis: Volatiles Analytical Method: S 8260B Prep Method: S 5030B QC Batch: 62999 Date Analyzed: 2009-08-27 Analyzed By: KBPrep Batch: 53764 Sample Preparation: 2009-08-27 Prepared By: KB

⁶²Concentration biased low.

⁶³Concentration biased low.

⁶⁴Concentration biased low. ⁶⁵Concentration biased low.

Work Order: 9082608 **HELSTF Semi-Annual Groundwater**

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		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result			Dilution	SDL	(Unadjusted)	(Unadjusted)
Bromochloromethane	U	< 0.370	<1.00	< 0.370	$\mu g/L$	1	0.370	1	0.37
Dichlorodifluoromethane	96 N	< 0.450	< 1.00	< 0.450		1	0.450	1	0.45
Chloromethane (methyl chloride)	U	< 0.590	< 1.00	< 0.590		1	0.590	1	0.59
Vinyl Chloride	U	< 0.690	< 1.00	< 0.690	$\mu \mathrm{g/L}$	1	0.690	1	0.69
Bromomethane (methyl bromide)	U	< 0.750	< 5.00	< 0.750	$\mu \mathrm{g/L}$	1	0.750	5	0.75
Chloroethane	$\setminus U$	< 0.570	<1.00	< 0.570	$\mu \mathrm{g/L}$	1	0.570	1	0.57
Trichlorofluoromethane	87 U	< 0.470	<1.00	< 0.470	$\mu \mathrm{g/L}$	1	0.470	1	0.47
Acetone	U	< 1.75	<10.0	8.53	$\mu \mathrm{g/L}$	1	1.75	10	1.75
Iodomethane (methyl iodide)	U	< 0.320	< 5.00	< 0.320	$\mu \mathrm{g/L}$	1	0.320	5	0.32
Carbon Disulfide	U	< 0.250	< 1.00	< 0.250	$\mu \mathrm{g/L}$	1	0.250	1	0.25
Acrylonitrile	U	< 0.320	< 1.00	< 0.320		1	0.320	1	0.32
2-Butanone (MEK)	DE D	< 0.810	< 5.00	11.3	$\mu \mathrm{g/L}$	1	0.810	5	0.81
4-Methyl-2-pentanone (MIBK)	U	< 0.790	< 5.00	< 0.790	$\mu \mathrm{g/L}$	1	0.790	5	0.79
2-Hexanone	$\subset U$	< 0.510	< 5.00	< 0.510		1	,0.510	5	0.51
trans 1,4-Dichloro-2-butene	ger A	< 0.490	<10.0	< 0.490		1	0.490	10	0.49
1,1-Dichloroethene		1.53	1.53	< 0.400	$\mu { m g/L}$	1	0.400	1	0.4
Methylene chloride	U	< 0.450	< 5.00	< 0.450		1	0.450	5	0.45
MTBE	U	< 0.400	< 1.00	< 0.400	$\mu { m g}/{ m L}$	1	0.400	1	0.4
trans-1,2-Dichloroethene	U	< 0.330	< 1.00	< 0.330	$\mu { m g/L}$	1	0.330	1	0.33
1,1-Dichloroethane	U	< 0.290	<1.00	< 0.290		1	0.290	1	0.29
cis-1,2-Dichloroethene	U	< 0.200	< 1.00	< 0.200	$\mu \mathrm{g/L}$	I	0.200	1	0.2
2,2-Dichloropropane	$\setminus U$.	< 0.420	< 1.00	< 0.420		1	0.420	1	0.42
1,2-Dichloroethane (EDC)		<0.350	<1.00	< 0.350	$\mu \mathrm{g/L}$	1	0.350	1	0.35
Chloroform	J N	0.440	< 1.00	< 0.270	$\mu { m g}/{ m L}$	1	0.270	1.	0.27
1,1,1-Trichloroethane	%L <i>U</i> ;	J<0.230	< 1.00	< 0.230		1	0.230	1	0.23
1,1-Dichloropropene	U	< 0.340	< 1.00	< 0.340	$\mu { m g/L}$	1	0.340	1	0.34
Benzene	U	<0.240	< 1.00	< 0.240		1	0.240	1	0.24
Carbon Tetrachloride	78, U.	<0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2-Dichloropropane	U	< 0.360	< 1.00	< 0.360	$\mu { m g/L}$	1	0.360	1	0.36
Trichloroethene (TCE)		44.0	44.0	< 0.300	$\mu { m g}/{ m L}$	1	0.300	1	0.3
Dibromomethane (methylene bromide)	$\mathcal{N}_{\mathbf{x}}U$	T<0.470	< 1.00	< 0.470		1	0.470	1	0.47
Bromodichloromethane	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
2-Chloroethyl vinyl ether	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
cis-1,3-Dichloropropene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
trans-1,3-Dichloropropene	U	< 0.380	<1.00	< 0.380		1	0.380	1	0.38
Toluene	U	< 0.270	< 1.00	< 0.270	$\mu { m g/L}$	1	0.270	1	0.27
1,1,2-Trichloroethane	U	< 0.280	<1.00	< 0.280		1	0.280	1	0.28
1,3-Dichloropropane	U	< 0.270	<1.00	< 0.270		1	0.270	1	0.27
Dibromochloromethane	U	< 0.320	<1.00	< 0.320		1	0.320	1	0.32
1,2-Dibromoethane (EDB)	U	< 0.340	<1.00	< 0.340	$\mu \mathrm{g/L}$	1	0.340	1	0.34

continued . . .

⁶⁶ Concentration biased low.
67 Concentration biased low.
68 Concentration biased high.
69 Concentration biased low.
70 Concentration biased low.
71 Concentration biased low.
73 Concentration biased low.

⁷³Concentration biased low.

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 $sample~207805~continued~\dots$

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Tetrachloroethene (PCE)	N U	< 0.280	<1.00	< 0.280		1	0.280	1	0.28
Chlorobenzene	\mathcal{L}^U	< 0.260	<1.00	< 0.260	$\mu { m g}/{ m L}$	1	0.260	1	0.26
1,1,1,2-Tetrachloroethane	No U	< 0.220	<1.00	< 0.220	$\mu { m g/L}$	1	0.220	1	0.22
Ethylbenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
$_{ m m,p ext{-}Xylene}$	$\sim U$	_<0.540	< 1.00	< 0.540	$\mu \mathrm{g/L}$	1	0.540	1	0.54
Bromoform	76,07	$T_{< 0.230}$	< 1.00	< 0.230	$\mu \mathrm{g/L}$	1	0.230	1	0.23
Styrene	U	< 0.210	< 1.00	< 0.210	$\mu \mathrm{g/L}$	1	0.210	1	0.21
o-Xylene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
1,1,2,2-Tetrachloroethane	U	< 0.420	< 1.00	< 0.420	$\mu \mathrm{g}/\mathrm{L}$	1	0.420	1	0.42
2-Chlorotoluene	U	< 0.240	< 1.00	< 0.240		1	0.240	1	0.24
1,2,3-Trichloropropane	U	< 0.430	< 1.00	< 0.430		1	0.430	1	0.43
Isopropylbenzene	U	< 0.260	< 1.00	< 0.260	$\mu { m g}/{ m L}$	1	0.260	1	0.26
Bromobenzene	U	< 0.260	<1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
n-Propylbenzene	U	< 0.310	< 1.00	< 0.310		1	0.310	1	0.31
1,3,5-Trimethylbenzene	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
tert-Butylbenzene	U	< 0.300	< 1.00	< 0.300	$\mu \mathrm{g/L}$	1	0.300	1	0.3
1,2,4-Trimethylbenzene	U	< 0.290	<1.00	< 0.290	$\mu \mathrm{g/L}$	1	0.290	1	0.29
1,4-Dichlorobenzene (para)	$T \subset U \subset$	T<0.240	< 1.00	< 0.240	$\mu \mathrm{g/L}$	1	0.240	1	0.24
sec-Butylbenzene	U	< 0.280	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
1,3-Dichlorobenzene (meta)	U	< 0.310	< 1.00	< 0.310	$\mu \mathrm{g/L}$	1	0.310	1	0.31
p-Isopropyltoluene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
4-Chlorotoluene	U	< 0.290	< 1.00	< 0.290	$\mu \mathrm{g/L}$	1	0.290	1	0.29
1,2-Dichlorobenzene (ortho)	U	< 0.270	<1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
n-Butylbenzene	\setminus^{v}	< 0.300	< 1.00	< 0.300	$\mu \mathrm{g/L}$	1	0.300	1	0.3
1,2-Dibromo-3-chloropropane	78, U	< 0.680	< 5.00	< 0.680	$\mu g/L$	1	0.680	5	0.68
1,2,3-Trichlorobenzene	U	< 0.330	< 5.00	< 0.330	$\mu \mathrm{g/L}$	1	0.330	5	0.33
1,2,4-Trichlorobenzene	U	< 0.340	< 5.00	< 0.340		1	0.340	5	0.34
Naphthalene	U	< 0.280	< 5.00	< 0.280	$\mu { m g/L}$	1	0.280	5	0.28
Hexachlorobutadiene	U	< 0.540	< 5.00	< 0.540	$\mu { m g}/{ m L}$	1	0.540	5	0.54

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.3	$\mu { m g}/{ m L}$	1	50.0	101	75.3 - 131
Toluene-d8		52.4	$\mu { m g}/{ m L}$	1	50.0	105	91.4 - 112
4-Bromofluorobenzene (4-BFB)		49.7	$\mu { m g}/{ m L}$	1	50.0	99	83.8 - 108

Sample: 207806 - HLSF-3839-HMW-035-0809

Laboratory: Lubbock

Analysis: Volatiles Analytical Method: S 8260B Prep Method: S 5030B

 ⁷⁴Concentration biased low.
 75Concentration biased low.
 76Concentration biased low.
 77Concentration biased low.
 78Concentration biased low.

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QC Batch: 62999 Prep Batch: 53764		e Analya nple Prej		2009-0				Analyzed By Prepared By	
		CDI	MOI	3 4 . 4 3 3					
		SDL Based	Based	Method				3 (A) F	MDI
Parameter	Flag			Blank	Tin:40	D:16; 6	CDI	MQL	MDL
Bromochloromethane	T lag	Result <0.370	<1.00			Dilution	SDL 0.370	(Unadjusted)	(Unadjusted)
Dichlorodifluoromethane	19 U	< 0.450		< 0.370	$\mu \mathrm{g/L}$	1		1	0.37
Chloromethane (methyl chloride)	U	< 0.430	<1.00	< 0.450		1	0.450	1	0.45
Vinyl Chloride	\overline{U}		<1.00	< 0.590	,,	1	0.590	1	0.59
Bromomethane (methyl bromide)	Ü	< 0.690	<1.00	< 0.690		1	0.690	1	0.69
Chloroethane	, Ü	< 0.750	< 5.00	< 0.750		1	0.750	5	0.75
Trichlorofluoromethane	80 U	< 0.570	<1.00	< 0.570		1	0.570	1	0.57
Acetone	U	< 0.470	<1.00	< 0.470	,	1	0.470	1	0.47
Iodomethane (methyl iodide)	U	<1.75	<10.0		$\mu g/L$	1	1.75	10	1.75
	U	< 0.320	< 5.00	< 0.320		1	0.320	5	0.32
Carbon Disulfide Acrylonitrile	\overline{v}	< 0.250	<1.00	< 0.250		1	0.250	1	0.25
	Sq U	< 0.320	<1.00	< 0.320		1	0.320	1	0.32
2-Butanone (MEK)	U	< 0.810	< 5.00		$\mu g/L$	1	0.810	5	0.81
4-Methyl-2-pentanone (MIBK)	U	< 0.790	< 5.00	< 0.790		1	0.790	5	0.79
2-Hexanone	\ 2 U	< 0.510	< 5.00	< 0.510		1	0.510	5	0.51
trans 1,4-Dichloro-2-butene	U	< 0.490	<10.0	< 0.490		1	0.490	10	0.49
1,1-Dichloroethene	U	< 0.400	<1.00	< 0.400		1	0.400	1	0.4
Methylene chloride	U	< 0.450	< 5.00	< 0.450		1	0.450	5	0.45
MTBE	U	< 0.400	<1.00	< 0.400	$\mu g/L$	1	0.400	1	0.4
trans-1,2-Dichloroethene	U	< 0.330	<1.00	< 0.330		1	0.330	1	0.33
1,1-Dichloroethane	U	< 0.290	<1.00	< 0.290		1	0.290	1	0.29
cis-1,2-Dichloroethene	U	< 0.200	<1.00	< 0.200		1	0.200	1	0.2
2,2-Dichloropropane		< 0.420	<1.00	< 0.420		1	0.420	1	0.42
1,2-Dichloroethane (EDC)	W 00	T<0.350	<1.00	< 0.350		1	0.350	1	0.35
Chloroform	U	< 0.270	<1.00	< 0.270		1	0.270	1	0.27
1,1,1-Trichloroethane	$\mathcal{L}_{U}^{\bullet}$	<0.230	<1.00	< 0.230		1	0.230	1	0.23
1,1-Dichloropropene		< 0.340	<1.00	< 0.340		1	0.340	1	0.34
Benzene	$\sum_{v=0}^{U}$	< 0.240	< 1.00	< 0.240		1	0.240	1	0.24
Carbon Tetrachloride	88, U	r<0.300	<1.00	< 0.300		1	0.300	1	0.3
1,2-Dichloropropane	U	< 0.360	<1.00	< 0.360		1	0.360	1	0.36
Trichloroethene (TCE)	U	< 0.300	<1.00	< 0.300		1	0.300	1	0.3
Dibromomethane (methylene bromide)	86. U.	< 0.470	< 1.00	< 0.470		1	0.470	1	0.47
Bromodichloromethane	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
2-Chloroethyl vinyl ether	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
cis-1,3-Dichloropropene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
trans-1,3-Dichloropropene	U	< 0.380	< 1.00	< 0.380		1	0.380	1	0.38
Toluene	U	< 0.270	< 1.00	< 0.270	$\mu { m g}/{ m L}$	1	0.270	1	0.27
1,1,2-Trichloroethane	U	< 0.280	< 1.00	< 0.280	$\mu { m g/L}$	1.	0.280	1	0.28

⁷⁹ Concentration biased low. 80 Concentration biased low. 81 Concentration biased high. 82 Concentration biased low. 83 Concentration biased low. 84 Concentration biased low. 85 Concentration biased low. 86 Concentration biased low.

sample 207806 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag		Result			Dilution	SDL	(Unadjusted)	(Unadjusted)
1,3-Dichloropropane	U	< 0.270	<1.00	< 0.270		1	0.270	1	0.27
Dibromochloromethane	U	< 0.320	< 1.00	< 0.320		1	0.320	1	0.32
1,2-Dibromoethane (EDB)	U	< 0.340	< 1.00	< 0.340		1	0.340	1	0.34
Tetrachloroethene (PCE)	87 U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
Chlorobenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
1,1,1,2-Tetrachloroethane	8 U	< 0.220	< 1.00	< 0.220	$\mu { m g/L}$	1	0.220	1	0.22
Ethylbenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
m,p-Xylene	U	< 0.540	< 1.00	< 0.540		1	0.540	1	0.54
Bromoform	89, U	^T <0.230	< 1.00	< 0.230		1	0.230	1	0.23
Styrene	U	< 0.210	<1.00	< 0.210		1	0.210	1	0.21
o-Xylene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
1,1,2,2-Tetrachloroethane	U	< 0.420	< 1.00	< 0.420		1	0.420	1	0.42
2-Chlorotoluene	U	< 0.240	< 1.00	< 0.240	$\mu { m g}/{ m L}$	1	0.240	1	0.24
1,2,3-Trichloropropane	U	< 0.430	< 1.00	< 0.430		1	0.430	1	0.43
Isopropylbenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
Bromobenzene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
n-Propylbenzene	U	< 0.310	< 1.00	< 0.310	$\mu \mathrm{g/L}$	1	0.310	1	0.31
1,3,5-Trimethylbenzene	U	< 0.270	< 1.00	< 0.270	$\mu { m g/L}$	1	0.270	1	0.27
tert-Butylbenzene	U	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2,4-Trimethylbenzene	U	< 0.290	< 1.00	< 0.290		1	0.290	1	0.29
1,4-Dichlorobenzene (para)	30 DC	\overline{C} <0.240	< 1.00	< 0.240	$\mu \mathrm{g/L}$	1	0.240	1	0.24
sec-Butylbenzene	U	< 0.280	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
1,3-Dichlorobenzene (meta)	U	< 0.310	< 1.00	< 0.310	$\mu \mathrm{g/L}$	1	0.310	1	0.31
p-Isopropyltoluene	U	< 0.330	< 1.00	< 0.330	$\mu \mathrm{g/L}$	1	0.330	1	0.33
4-Chlorotoluene	U	< 0.290	< 1.00	< 0.290		1	0.290	1	0.29
1,2-Dichlorobenzene (ortho)	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
n-Butylbenzene	\mathcal{L}^U	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2-Dibromo-3-chloropropane	3 1 U	< 0.680	< 5.00	< 0.680		1	0.680	5	0.68
1,2,3-Trichlorobenzene	U	< 0.330	< 5.00	< 0.330	$\mu \mathrm{g/L}$	1	0.330	5	0.33
1,2,4-Trichlorobenzene	U	< 0.340	< 5.00	< 0.340		1	0.340	5	0.34
Naphthalene	U	< 0.280	< 5.00	< 0.280		1	0.280	5	0.28
Hexachlorobutadiene	U	< 0.540	< 5.00	< 0.540		1	0.540	5	0.54

A	***	***		wa	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		51.5	$\mu \mathrm{g/L}$	1	50.0	103	75.3 - 131
Toluene-d8		52.4	$\mu { m g}/{ m L}$	1	50.0	105	91.4 - 112
4-Bromofluorobenzene (4-BFB)		50.4	$\mu { m g}/{ m L}$	1	50.0	101	83.8 - 108

⁸⁷Concentration biased low. ⁸⁸Concentration biased low. ⁸⁹Concentration biased low. ⁹⁰Concentration biased low. ⁹¹Concentration biased low.

Laboratory: Lubbock

Work Order: 9082608 **HELSTF Semi-Annual Groundwater** Page Number: 19 of 35

Sample: 207807 - HLSF-3839-H	IMW-034-0809
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Analysis: Volatiles QC Batch: 62999 Prep Batch: 53764	Dat	ilytical M e Analyz iple Prep	ed:	S 8260 2009-0 2009-0	8-27			Prep Method Analyzed By Prepared By	: KB
		SDL	MOT	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result			Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Bromochloromethane	0	< 0.370	<1.00	< 0.370	$\mu \mathrm{g/L}$	1	0.370	1	0.37
Dichlorodifluoromethane	U	< 0.450	<1.00	< 0.450		1	0.450		0.45
Chloromethane (methyl chloride)	U	< 0.590	<1.00	< 0.590		ī	0.590	ī	0.59
Vinyl Chloride	U	< 0.690	<1.00	< 0.690		$\bar{1}$	0.690	$\bar{1}$	0.69
Bromomethane (methyl bromide)	U	< 0.750	< 5.00	< 0.750		1	0.750	5	0.75
Chloroethane	U	< 0.570	< 1.00	< 0.570		1	0.570	1	0.57
Trichlorofluoromethane	U	< 0.470	< 1.00	< 0.470		1	0.470	1	0.47
Acetone	U	< 1.75	< 10.0		$\mu \mathrm{g/L}$	1	1.75	10	1.75
Iodomethane (methyl iodide)	Ųυ	< 0.320	< 5.00	< 0.320		1	0.320	5	0.32
Carbon Disulfide	98 U	< 0.250	< 1.00	< 0.250		1	0.250	1	0.25
Acrylonitrile	U	< 0.320	< 1.00	< 0.320		1	0.320	1	0.32
2-Butanone (MEK)	98. U	< 0.810	< 5.00	11.3	$\mu \mathrm{g/L}$	1	0.810	5	0.81
4-Methyl-2-pentanone (MIBK)	U	< 0.790	< 5.00	< 0.790	$\mu \mathrm{g}/\mathrm{L}$	1	0.790	5	0.79
2-Hexanone	U	< 0.510	< 5.00	< 0.510	$\mu \mathrm{g/L}$	1	0.510	5	0.51
trans 1,4-Dichloro-2-butene	U	< 0.490	<10.0	< 0.490	$\mu \mathrm{g/L}$	1	0.490	10	0.49
1,1-Dichloroethene	U	< 0.400	< 1.00	< 0.400	$\mu { m g/L}$	1	0.400	1	0.4
Methylene chloride	U	< 0.450	< 5.00	< 0.450		1.	0.450	5	0.45
MTBE	U	< 0.400	< 1.00	< 0.400		1	0.400	1	0.4
trans-1,2-Dichloroethene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
1,1-Dichloroethane	U	< 0.290	<1.00	< 0.290		1	0.290	1	0.29
cis-1,2-Dichloroethene	\ U	< 0.200	< 1.00	< 0.200		1	0.200	1	0.2
2,2-Dichloropropane	34 U	< 0.420	<1.00	< 0.420		1	0.420	1	0.42
1,2-Dichloroethane (EDC)	95 07	J<0.350	< 1.00	< 0.350		1	0.350	1	0.35
Chloroform	$\bigcup_{n=1}^{U}$	<0.270	< 1.00	< 0.270		1	0.270	1	0.27
1,1,1-Trichloroethane	9Q U €	T < 0.230	<1.00	< 0.230		1	0.230	1	0.23
1,1-Dichloropropene	U	< 0.340	<1.00	< 0.340		1	0.340	1	0.34
Benzene	U	< 0.240	<1.00	< 0.240		1	0.240	1	0.24
Carbon Tetrachloride	98, 0	T<0.300	<1.00	< 0.300		1	0.300	1	0.3
1,2-Dichloropropane	U	< 0.360	< 1.00	< 0.360	$\mu { m g/L}$	1	0.360	1	0.36
Trichloroethene (TCE)	$\sum_{n=1}^{U}$	<0.300	< 1.00	< 0.300		1	0.300	1	0.3
Dibromomethane (methylene bromide)	98. <i>0</i> (7 < 0.470	< 1.00	< 0.470		1	0.470	1	0.47
Bromodichloromethane	<i>U</i>	< 0.280	< 1.00	< 0.280	$\mu { m g/L}$	1	0.280	1	0.28

<0.330 <5.00 <0.330 $\mu g/L$

continued ...

5

0.33

0.330

1

2-Chloroethyl vinyl ether

⁹²Concentration biased high. 92 Concentration biased high. 93 Concentration biased high. 94 Concentration biased low. 95 Concentration biased low. 96 Concentration biased low. 97 Concentration biased low. 98 Concentration biased low.

⁹⁹ Concentration biased high.

 $sample~207807~continued~\dots$

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
cis-1,3-Dichloropropene	100 U	< 0.330	< 1.00	< 0.330	$\mu g/L$	1	0.330	1	0.33
trans-1,3-Dichloropropene	U	< 0.380	< 1.00	< 0.380	$\mu \mathrm{g/L}$	1	0.380	1	0.38
Toluene	U	< 0.270	< 1.00	< 0.270	$\mu g/L$	1	0.270	1	0.27
1,1,2-Trichloroethane	Ũ	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
1,3-Dichloropropane	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
Dibromochloromethane	U	< 0.320	< 1.00	< 0.320		1	0.320	1	0.32
1,2-Dibromoethane (EDB)	U	< 0.340	< 1.00	< 0.340	$\mu { m g/L}$	1	0.340	1	0.34
Tetrachloroethene (PCE)	191 D	< 0.280	<1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
Chlorobenzene	U	< 0.260	<1.00	< 0.260	$\mu g/L$	1	0.260	1	0.26
1,1,1,2-Tetrachloroethane	102 U	< 0.220	< 1.00	< 0.220	$\mu g/L$	1	0.220	1	0.22
Ethylbenzene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
m,p-Xylene	$\bigcup_{i \in I} U_i$	< 0.540	< 1.00	< 0.540	$\mu \mathrm{g/L}$	1	0.540	1	0.54
Bromoform	108, U	J<0.230	< 1.00	< 0.230		1	0.230	1	0.23
Styrene	U	< 0.210	< 1.00	< 0.210	$\mu \mathrm{g/L}$	1	0.210	1	0.21
o-Xylene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
1,1,2,2-Tetrachloroethane	U	< 0.420	< 1.00	< 0.420	$\mu \mathrm{g/L}$	1	0.420	1	0.42
2-Chlorotoluene	U	< 0.240	<1.00	< 0.240		1	0.240	1	0.24
1,2,3-Trichloropropane	U	< 0.430	<1.00	< 0.430		1	0.430	1	0.43
Isopropylbenzene	U	< 0.260	<1.00	< 0.260		1	0.260	1	0.26
Bromobenzene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
n-Propylbenzene	U	< 0.310	< 1.00	< 0.310		1	0.310	I	0.31
1,3,5-Trimethylbenzene	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
tert-Butylbenzene	U	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
1,2,4-Trimethylbenzene	U	< 0.290	<1.00	< 0.290		1	0.290	1	0.29
1,4-Dichlorobenzene (para)	194 00	(0.240)	< 1.00	< 0.240		1	0.240	1	0.24
sec-Butylbenzene	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
1,3-Dichlorobenzene (meta)	U	< 0.310	< 1.00	< 0.310		1	0.310	1	0.31
p-Isopropyltoluene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
4-Chlorotoluene	U	< 0.290	< 1.00	< 0.290		1	0.290	1	0.29
1,2-Dichlorobenzene (ortho)	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
n-Butylbenzene	U	< 0.300	<1.00	< 0.300		1	0.300	1	0.3
1,2-Dibromo-3-chloropropane	U	< 0.680	< 5.00	< 0.680		1	0.680	5	0.68
1,2,3-Trichlorobenzene	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
1,2,4-Trichlorobenzene	U	< 0.340	< 5.00	< 0.340		1	0.340	5	0.34
Naphthalene	U	< 0.280	< 5.00	< 0.280		1	0.280	5	0.28
Hexachlorobutadiene	U	< 0.540		< 0.540		1	0.540	5	0.54

					Spike	$\operatorname{Percent}$	Recovery
Surrogate	Flag	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		53.9	$\mu \mathrm{g/L}$	1	50.0	108	75.3 - 131
Toluene-d8		52.7	$\mu { m g}/{ m L}$	1	50.0	105	91.4 - 112

continued . . .

¹⁰⁰ Concentration biased high. 101 Concentration biased high. 102 Concentration biased low. 103 Concentration biased low. 104 Concentration biased low.

Page Number: 21 of 35

$sample\ continued\ \dots$							
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		51.4	$\mu \mathrm{g/L}$	1	50.0	103	83.8 - 108

Sample: 207808 - HLSF-3839-TB-09-000

Laboratory: Lubbock				
Analysis: Volatiles	Analytical Method: S 8260	В	Prep Method:	S 5030B
QC Batch: 62999	Date Analyzed: 2009-0	8-27	Analyzed By:	KB
Prep Batch: 53764	Sample Preparation: 2009-0	8-27	Prepared By:	KB
	SDL MQL Method			
	Based Based Blank		MQL	MDL
Parameter	Flag Result Result Result	Units Dilution SDL	(Unadjusted) ((Unadjusted)
Bromochloromethane	U <0.370 <1.00 <0.370	μα/T 1 0.370	1 1	Ω 37

		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Bromochloromethane		< 0.370	< 1.00	< 0.370	$\mu \mathrm{g/L}$	1	0.370	1	0.37
Dichlorodifluoromethane	10g U	< 0.450	< 1.00	< 0.450	$\mu \mathrm{g/L}$	1	0.450	1	0.45
Chloromethane (methyl chloride)	U	< 0.590	< 1.00	< 0.590	$\mu \mathrm{g/L}$	1	0.590	1	0.59
Vinyl Chloride	U	< 0.690	< 1.00	< 0.690		1	0.690	1	0.69
Bromomethane (methyl bromide)	U	< 0.750	< 5.00	< 0.750	$\mu \mathrm{g/L}$	1	0.750	5	0.75
Chloroethane	U	< 0.570	< 1.00	< 0.570		1	0.570	1	0.57
Trichlorofluoromethane	186 U	< 0.470	< 1.00	< 0.470	$\mu \mathrm{g}/\mathrm{L}$	1	0.470	1	0.47
Acetone	JB	3.08	< 10.0		$\mu \mathrm{g}/\mathrm{L}$	1	1.75	10	1.75
Iodomethane (methyl iodide)	U	< 0.320	< 5.00	< 0.320		1	0.320	5	0.32
Carbon Disulfide	U	< 0.250	< 1.00	< 0.250		1	0.250	I	0.25
Acrylonitrile	\setminus^U	< 0.320	< 1.00	< 0.320	$\mu \mathrm{g}/\mathrm{L}$	1	0.320	1	0.32
2-Butanone (MEK)	194 U	< 0.810	< 5.00		$\mu \mathrm{g/L}$	1	0.810	5	0.81
4-Methyl-2-pentanone (MIBK)	U	< 0.790	< 5.00	< 0.790	$\mu g/L$	1	0.790	5	0.79
2-Hexanone	\setminus^{v}	< 0.510	< 5.00	< 0.510	$\mu g/L$	1	0.510	5	0.51
trans 1,4-Dichloro-2-butene	108 U	< 0.490	< 10.0	< 0.490		1	0.490	10	0.49
1,1-Dichloroethene	U	< 0.400	< 1.00	< 0.400	$\mu g/L$	1	0.400	1	0.4
Methylene chloride	J	1.92	< 5.00	< 0.450	$\mu \mathrm{g}/\mathrm{L}$	1	0.450	5	0.45
MTBE	U	< 0.400	< 1.00	< 0.400	$\mu \mathrm{g}/\mathrm{L}$	1	0.400	1	0.4
trans-1,2-Dichloroethene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
1,1-Dichloroethane	U	< 0.290	< 1.00	< 0.290		1	0.290	1	0.29
cis-1,2-Dichloroethene	U	< 0.200	< 1.00	< 0.200	$\mu \mathrm{g}/\mathrm{L}$	1	0.200	1	0.2
2,2-Dichloropropane	\mathbf{v}	< 0.420	< 1.00	< 0.420		1	0.420	1	0.42
1,2-Dichloroethane (EDC)	100 00	T<0.350	< 1.00	< 0.350		1	0.350	1	0.35
Chloroform	U	< 0.270	< 1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
1,1,1-Trichloroethane	NO W	⁷ <0.230	< 1.00	< 0.230		1	0.230	1	0.23
1,1-Dichloropropene	U	< 0.340	< 1.00	< 0.340		1	0.340	1	0.34
Benzene	U	< 0.240	< 1.00	< 0.240		1	0.240	1	0.24

continued . . .

¹⁰⁵ Concentration biased low. 106 Concentration biased low. 107 Concentration biased high. 108 Concentration biased low. 109 Concentration biased low. 110 Concentration biased low.

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sample 207808 continued ...

		SDL	MOL	Method					
			Based	Blank				MQL	MDL
Parameter	Flag	Result			Units	Dilution	SDL	(Unadjusted)	
Carbon Tetrachloride	THE Ü	< 0.300	<1.00	< 0.300		1	0.300	1	0.3
1,2-Dichloropropane	U	< 0.360	< 1.00	< 0.360	$\mu g/L$	1	0.360	1	0.36
Trichloroethene (TCE)	U	< 0.300	< 1.00	< 0.300		1	0.300	1	0.3
Dibromomethane (methylene bromide)	$D_{\mathbf{S}_{\mathbf{s}}}U_{\mathbf{s}}$	$J_{< 0.470}$	< 1.00	< 0.470		1	0.470	1	0.47
Bromodichloromethane	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
2-Chloroethyl vinyl ether	U	< 0.330	< 5.00	< 0.330		1	0.330	5	0.33
cis-1,3-Dichloropropene	U	< 0.330	< 1.00	< 0.330		1	0.330	1	0.33
trans-1,3-Dichloropropene	U	< 0.380	< 1.00	< 0.380		1	0.380	1	0.38
Toluene	U	< 0.270	< 1.00	< 0.270		1	0.270	1	0.27
1,1,2-Trichloroethane	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
1,3-Dichloropropane	U	< 0.270	<1.00	< 0.270	$\mu \mathrm{g/L}$	1	0.270	1	0.27
Dibromochloromethane	U	< 0.320	<1.00	< 0.320	$\mu \mathrm{g/L}$	1	0.320	1	0.32
1,2-Dibromoethane (EDB)	\mathcal{U}	< 0.340	< 1.00	< 0.340	$\mu \mathrm{g/L}$	1	0.340	1	0.34
Tetrachloroethene (PCE)	ing U	< 0.280	< 1.00	< 0.280	$\mu \mathrm{g/L}$	1	0.280	1	0.28
Chlorobenzene	U	< 0.260	< 1.00	< 0.260	$\mu \mathrm{g/L}$	1	0.260	1	0.26
1,1,1,2-Tetrachloroethane	N ₄ U	< 0.220	< 1.00	< 0.220	$\mu \mathrm{g/L}$	1	0.220	1	0.22
Ethylbenzene	U	< 0.260	< 1.00	< 0.260	$\mu { m g}/{ m L}$	1	0.260	1	0.26
m,p-Xylene	Ų,	<0.540	< 1.00	< 0.540	$\mu { m g}/{ m L}$	1	0.540	1	0.54
- Bromoform	THE U	$r_{< 0.230}$	<1.00	< 0.230		1	0.230	1	0.23
Styrene	U	< 0.210	<1.00	< 0.210	$\mu { m g/L}$	1	0.210	1	0.21
o-Xylene	U	< 0.260	< 1.00	< 0.260		1	0.260	1	0.26
1,1,2,2-Tetrachloroethane	U	< 0.420	<1.00	< 0.420	$\mu \mathrm{g/L}$	1	0.420	1	0.42
2-Chlorotoluene	U	< 0.240	< 1.00	< 0.240	$\mu \mathrm{g/L}$	1	0.240	1	0.24
1,2,3-Trichloropropane	U	< 0.430	< 1.00	< 0.430		1	0.430	1	0.43
Isopropylbenzene	U	< 0.260	< 1.00	< 0.260	$\mu { m g/L}$	1	0.260	1	0.26
Bromobenzene	U	< 0.260	<1.00	< 0.260	$\mu { m g/L}$	1	0.260	1	0.26
n-Propylbenzene	U	< 0.310	<1.00	< 0.310	$\mu \mathrm{g/L}$	1	0.310	1	0.31
1,3,5-Trimethylbenzene	U	< 0.270	<1.00	< 0.270		1	0.270	1	0.27
tert-Butylbenzene	U	< 0.300	<1.00	< 0.300		1	0.300	1	0.3
1,2,4-Trimethylbenzene	U	< 0.290	< 1.00	< 0.290	$\mu { m g/L}$	1	0.290	1	0.29
1,4-Dichlorobenzene (para)	THELUT	⁵ <0.240	< 1.00	< 0.240	$\mu { m g/L}$	1	0.240	1	0.24
sec-Butylbenzene	U	< 0.280	< 1.00	< 0.280		1	0.280	1	0.28
1,3-Dichlorobenzene (meta)	U	< 0.310		< 0.310		1	0.310	1	0.31
p-Isopropyltoluene	U	< 0.330	<1.00	< 0.330	$\mu { m g/L}$	1	0.330	1	0.33
4-Chlorotoluene	U	< 0.290	<1.00	< 0.290		1	0.290	1	0.29
1,2-Dichlorobenzene (ortho)	U	< 0.270	<1.00	< 0.270		1	0.270	1	0.27
n-Butylbenzene	\ ^U	< 0.300	<1.00	< 0.300		1	0.300	1	0.3
1,2-Dibromo-3-chloropropane	ı N Ç U	< 0.680	< 5.00	< 0.680		1	0.680	5	0.68
1,2,3-Trichlorobenzene	U	< 0.330	<5.00	< 0.330	$\mu { m g/L}$	1	0.330	5	0.33

continued ...

¹¹¹ Concentration biased low. 112 Concentration biased low. 113 Concentration biased low. 114 Concentration biased low. 115 Concentration biased low. 116 Concentration biased low. 117 Concentration biased low.

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sample 207808 continued . . .

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
1,2,4-Trichlorobenzene	U	< 0.340	< 5.00	< 0.340	$\mu g/L$	1	0.340	5	0.34
Naphthalene	U	< 0.280	< 5.00	< 0.280	$\mu \mathrm{g}/\mathrm{L}$	1	0.280	5	0.28
Hexachlorobutadiene	U	< 0.540	< 5.00	< 0.540	$\mu { m g}/{ m L}$	1	0.540	5	0.54

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.2	$\mu \mathrm{g/L}$	1	50.0	98	75.3 - 131
Toluene-d8		53.8	$\mu { m g}/{ m L}$	1	50.0	108	91.4 - 112
4-Bromofluorobenzene (4-BFB)		50.6	$\mu { m g}/{ m L}$	1	50.0	101	83.8 - 108

Method Blank (1)

QC Batch: 62999 Prep Batch: 53764

Date Analyzed: 2009-08-27 QC Preparation: 2009-08-27 Analyzed By: KB Prepared By: KB

				Reporting
Parameter	Flag	Result	Units	Limits
Bromochloromethane		< 0.370	$\mu { m g/L}$	0.37
Dichlorodifluoromethane		< 0.450	$\mu \mathrm{g/L}$	0.45
Chloromethane (methyl chloride)		< 0.590	$\mu { m g/L}$	0.59
Vinyl Chloride		< 0.690	$\mu { m g}/{ m L}$	0.69
Bromomethane (methyl bromide)		< 0.750	$\mu { m g}/{ m L}$	0.75
Chloroethane	5.	< 0.570	$\mu { m g}/{ m L}$	0.57
Trichlorofluoromethane	Andrew Commencer	< 0.470	$\mu { m g}/{ m L}$	0.47
Acetone	N. N.	\ 8.53	$\mu { m g}/{ m L}$	1.75
— Iodomethane (methyl iodide)		< 0.320	$\mu { m g}/{ m L}$	0.32
Carbon Disulfide		< 0.250	$\mu { m g}/{ m L}$	0.25
Acrylonitrile	* *	< 0.320	$\mu { m g}/{ m L}$	0.32
2-Butanone (MEK) \		(11.3)	$\mu { m g}/{ m L}$	0.81
–4-Methyl-2-pentanone (MIBK)		<0.790	$\mu { m g}/{ m L}$	0.79
2-Hexanone		< 0.510	$\mu { m g}/{ m L}$	0.51
trans 1,4-Dichloro-2-butene		< 0.490	$\mu \mathrm{g}/\mathrm{L}$	0.49
1,1-Dichloroethene		< 0.400	$\mu { m g}/{ m L}$	0.4
Methylene chloride		< 0.450	$\mu { m g}/{ m L}$	0.45
MTBE		< 0.400	$\mu { m g}/{ m L}$	0.4
trans-1,2-Dichloroethene		< 0.330	$\mu \mathrm{g}/\mathrm{L}$	0.33
1,1-Dichloroethane		< 0.290	$\mu \mathrm{g}/\mathrm{L}$	0.29
cis-1,2-Dichloroethene		< 0.200	$\mu { m g}/{ m L}$	0.2
2,2-Dichloropropane		< 0.420	$\mu { m g}/{ m L}$	0.42
1,2-Dichloroethane (EDC)		< 0.350	$\mu { m g}/{ m L}$	0.35
Chloroform		< 0.270	$\mu { m g}/{ m L}$	0.27
1,1,1-Trichloroethane		< 0.230	$\mu { m g}/{ m L}$	0.23
1,1-Dichloropropene		< 0.340	$\mu { m g}/{ m L}$	0.34
Benzene		< 0.240	$\mu { m g}/{ m L}$	0.24

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Report Date: September 17, 2009

Work Order: 9090808 **HELSTF Semi-Annual Groundwater** Page Number: 4 of 28

Analytical Report

Sample: 209311 - HLSF-0154-DRW-016-0909

Laboratory: Lubbock

Analysis: Volatiles QC Batch: 63556 Prep Batch: 54254

Analytical Method: Date Analyzed:

S 8260B 2009-09-14 Sample Preparation: 2009-09-14 Prep Method: S 5030B Analyzed By: $_{
m JG}$ Prepared By: $_{
m JG}$

		SDL	MOT	Method					
			Based	Blank				MQL	MDL
Parameter	Flag	Result			Unite	Dilution	SDL	•	(Unadjusted)
Bromochloromethane	\overline{U}	< 0.169				1	0.169	1	0.169
Dichlorodifluoromethane	U	< 0.145				1	0.145	1	0.145
Chloromethane (methyl chloride)	U	< 0.164		< 0.164		1	0.164	1	0.164
Vinyl Chloride	U	< 0.110				1	0.110	1	0.11
Bromomethane (methyl bromide)	U	< 0.540		< 0.540		1	0.540	5	0.54
Chloroethane	U	< 0.232		< 0.232		î	0.232	1	0.232
Trichlorofluoromethane	J	0.304	<1.00	ZO 140		î	0.149	1	0.149
Acetone	NUJ	< 0.893	<10.0	2.05	$\mu g/L$	1	0.893	10	0.893
Iodomethane (methyl iodide)	U	< 0.104	< 5.00	< 0.104		1	0.104	5	0.104
Carbon Disulfide	U	< 0.120		< 0.120		1	0.120	1	0.12
Acrylonitrile	U	< 0.189		< 0.189		1	0.189	$\overline{1}$	0.189
2-Butanone (MEK)	\ Q U	< 0.218		0.596		1	0.218	5	0.218
4-Methyl-2-pentanone (MIBK)	U	< 0.554		< 0.554		1	0.554	5	0.554
2-Hexanone	U	< 0.863		< 0.863		1	0.863	5	0.863
trans 1,4-Dichloro-2-butene	$U \supset$	< 0.607	<10.0	< 0.607		1	0.607	10	0.607
1,1-Dichloroethene		5.84	5.84	< 0.102		1	0.102	1	0.102
Methylene chloride	U	< 0.270	< 5.00	< 0.270		1	0.270	5	0.27
MTBE	J	0.289	< 1.00	< 0.122		1	0.122	1	0.122
trans-1,2-Dichloroethene	U	< 0.168	< 1.00	< 0.168		1	0.168	1	0.168
1,1-Dichloroethane		1.32	1.32	< 0.107		1	0.107	1	0.107
cis-1,2-Dichloroethene	U	< 0.151		< 0.151		1	0.151	1	0.151
2,2-Dichloropropane	U	< 0.167		< 0.167		1	0.167	1	0.167
1,2-Dichloroethane (EDC)	U			< 0.0890		1	0.0890	1	0.089
Chloroform		1.07	1.07	< 0.121		1	0.121	1	0.121
1,1,1-Trichloroethane	U	< 0.170	< 1.00	< 0.170		1	0.170	1	0.17
1,1-Dichloropropene	U	< 0.156	< 1.00	< 0.156	$\mu g/L$	1	0.156	1	0.156
Benzene	J	0.288	< 1.00	< 0.113	$\mu g/L$	1	0.113	1	0.113
Carbon Tetrachloride	U	< 0.0930	< 1.00	< 0.0930	$\mu \mathrm{g/L}$	1	0.0930	1	0.093
1,2-Dichloropropane	U	< 0.129		< 0.129		1	0.129	1	0.129
Trichloroethene (TCE)	J	77.8	77.8	< 0.160		1	0.160	1	0.16
Dibromomethane (methylene bromide)	U	< 0.137	<1.00	< 0.137	$\mu \mathrm{g/L}$	1	0.137	1	0.137
Bromodichloromethane	J	0.165	< 1.00	< 0.107	$\mu \mathrm{g/L}$	1	0.107	1	0.107
2-Chloroethyl vinyl ether	UR	< 0.257	< 5.00	< 0.257		1	0.257	5	0.257
cis-1,3-Dichloropropene	U^{-1}	< 0.109		< 0.109		1	0.109	1	0.109
trans-1,3-Dichloropropene	U	< 0.181	<1.00	< 0.181		1	0.181	1	0.181
Toluene	U	< 0.117	<1.00	< 0.117	$\mu \mathrm{g/L}$	1	0.117	1	0.117
								7	

continued ...

¹Concentration biased low.

 $^{^2{\}rm Concentration}$ biased low.

Page Number: 5 of 28

sample 209311 continued ...

		SDL	MQL	Method					
			Based	Blank				MQL	MDL
Parameter	Flag	Result				Dilution	SDL	(Unadjusted)	(Unadjusted)
1,1,2-Trichloroethane	\overline{v}		<1.00	< 0.143		1	0.143	1	0.143
1,3-Dichloropropane	U	< 0.191		< 0.191		1	0.191	1	0.191
Dibromochloromethane	U	< 0.118		< 0.118		1	0.118	1	0.118
1,2-Dibromoethane (EDB)	U	< 0.131	<1.00	< 0.131		1	0.131	1	0.131
Tetrachloroethene (PCE)	802	< 0.353		< 0.353		1	0.353	1	0.353
Chlorobenzene	U	< 0.135		< 0.135	$\mu { m g/L}$	1	0.135	1	0.135
1,1,1,2-Tetrachloroethane	U	< 0.263	<1.00	< 0.263	$\mu \mathrm{g/L}$	1	0.263	1	0.263
Ethylbenzene	U	< 0.174		< 0.174	$\mu \mathrm{g/L}$	1	0.174	1	0.174
m,p-Xylene	U	< 0.220		< 0.220	$\mu \mathrm{g/L}$	1	0.220	1	0.22
Bromoform	U	< 0.385	<1.00	< 0.385	$\mu \mathrm{g/L}$	1	0.385	1	0.385
Styrene	U	< 0.413	<1.00	< 0.413	$\mu \mathrm{g/L}$	1	0.413	1	0.413
o-Xylene	U	< 0.115	<1.00	< 0.115	$\mu g/L$	1	0.115	1	0.115
1,1,2,2-Tetrachloroethane	U	< 0.766	<1.00	< 0.766	$\mu \mathrm{g/L}$	1	0.766	1	0.766
2-Chlorotoluene	U	< 0.132	< 1.00	< 0.132	$\mu \mathrm{g/L}$	1	0.132	1	0.132
1,2,3-Trichloropropane	U	< 0.599	< 1.00	< 0.599	$\mu \mathrm{g/L}$	1	0.599	1	0.599
Isopropylbenzene	U	< 0.145	< 1.00	< 0.145		1	0.145	1	0.145
Bromobenzene	U	< 0.266	< 1.00	< 0.266	$\mu \mathrm{g/L}$	1	0.266	1	0.266
n-Propylbenzene	U	< 0.136	< 1.00	< 0.136		1	0.136	1	0.136
1,3,5-Trimethylbenzene	U	< 0.124	< 1.00	< 0.124		1	0.124	1	0.124
tert-Butylbenzene	\mathbf{V}^U	< 0.136	< 1.00	< 0.136		1	0.136	1	0.136
1,2,4-Trimethylbenzene	V U	< 0.114	< 1.00	< 0.114		1	0.114	1	0.114
1,4-Dichlorobenzene (para)	U	< 0.230	< 1.00	< 0.230		1	0.230	1	0.23
sec-Butylbenzene	U	< 0.452	< 1.00	< 0.452		1	0.452	1	0.452
1,3-Dichlorobenzene (meta)	U	< 0.214	< 1.00	< 0.214	$\mu \mathrm{g}/\mathrm{L}$	1	0.214	1	0.214
p-Isopropyltoluene	U	< 0.126	< 1.00	< 0.126	$\mu g/L$	1	0.126	1	0.126
4-Chlorotoluene	U	< 0.161	< 1.00	< 0.161	$\mu g/L$	1	0.161	1	0.161
1,2-Dichlorobenzene (ortho)	U	< 0.357		< 0.357	$\mu g/L$	1	0.357	1	0.357
n-Butylbenzene	U	< 0.125	< 1.00	0.163	$\mu g/L$	1	0.125	1	0.125
1,2-Dibromo-3-chloropropane	U	< 0.977		< 0.977	μg/L	1	0.977	5	0.977
1,2,3-Trichlorobenzene	U	< 0.400		< 0.400	$\mu g/L$	1	0.400	5	0.4
1,2,4-Trichlorobenzene	U	< 0.227		< 0.227		1	0.227	5	0.227
Naphthalene	U	< 0.672		< 0.672		1	0.672	5	0.672
Hexachlorobutadiene	U	< 0.198	< 5.00	0.473		1	0.198	5	0.198

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.8	$\mu \mathrm{g/L}$	1	50.0	100	70 - 130
Toluene-d8		51.2	$\mu { m g}/{ m L}$	1	50.0	102	70 - 130
4-Bromofluorobenzene (4-BFB)		51.2	$\mu { m g}/{ m L}$	1	50.0	102	70 - 130

Sample: 209312 - HLSF-0154-HCF-001-0909

³Concentration biased low. ⁴Concentration biased low.

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Laboratory: Lubbock Analysis: Volatiles QC Batch: 63556 Prep Batch: 54254	Dat	alytical M e Analyz aple Prep	ed:	S 8260 2009-0 : 2009-0	9-14			Prep Method: Analyzed By: Prepared By:	S 5030B JG JG
		SDL	MOI	Method					
			Based	Blank				MQL	MDL
Parameter	Flag	Result			Units	Dilution	SDL	(Unadjusted) (
Bromochloromethane	0	< 0.169	<1.00	< 0.169		1	0.169	1	0.169
Dichlorodifluoromethane	U	< 0.145		< 0.145		1	0.145	1	0.145
Chloromethane (methyl chloride)	U	< 0.164		< 0.164		1	0.164	1	0.164
Vinyl Chloride	U	< 0.110		< 0.110		1	0.110	1	0.11
Bromomethane (methyl bromide)	U	< 0.540		< 0.540		1	0.540	5	0.54
Chloroethane	U	< 0.232		< 0.232		1	0.232	1	0.232
Trichlorofluoromethane	U	< 0.149		< 0.149		1	0.149	î	0.149
Acetone	103	<0.893			$\mu g/L$	î	0.893	10	0.893
Iodomethane (methyl iodide)	U	< 0.104		< 0.104		1	0.104	5	0.104
Carbon Disulfide	J		<1.00	< 0.120		î	0.120	1	0.12
Acrylonitrile	U	< 0.189		< 0.189		1	0.189	î	0.189
2-Butanone (MEK)	\mathcal{U}	< 0.218		0.596		1	0.218	5	0.218
4-Methyl-2-pentanone (MIBK)	U	< 0.554		< 0.554		1	0.554	5	0.554
2-Hexanone	U	< 0.863		< 0.863		1	0.863	5	0.863
trans 1,4-Dichloro-2-butene	U	< 0.607		< 0.607		1	0.607	10	0.607
1,1-Dichloroethene	U	< 0.102		< 0.102		1	0.102	1	0.102
Methylene chloride	U	< 0.270		< 0.102		1	0.270	5	0.102
MTBE		1.40	1.40	< 0.122		1	0.122	1	0.122
trans-1,2-Dichloroethene	U	< 0.168		< 0.122		1	0.168	1	0.122
1,1-Dichloroethane	J		<1.00	< 0.103		1	0.103	1	0.103
cis-1,2-Dichloroethene	U	< 0.151		< 0.101		1	0.157	1	0.151
2,2-Dichloropropane	U	< 0.167		< 0.167		1	0.167	1	0.151
1,2-Dichloroethane (EDC)	U			< 0.107	μg/L	1	0.0890		0.107
Chloroform	U	<0.121		< 0.121		1	0.0090	1	0.069
1,1,1-Trichloroethane	U	< 0.170				1	0.170	1	
1,1-Dichloropropene	U	< 0.176		< 0.170		1	0.176		0.17
Benzene		4.80	4.80	<0.156			0.130	1 1	0.156
Carbon Tetrachloride	U .			<0.113 <0.0930	$\mu_{\rm g/L}$	1 1	0.0930		0.113 0.093
1,2-Dichloropropane	U	< 0.129		< 0.129		1	0.0930	1	0.093
Trichloroethene (TCE)	J	0.170		< 0.129					
Dibromomethane (methylene bromide)	U	< 0.137				1	0.160	1 1	0.16
Bromodichloromethane	U	< 0.107		< 0.137		1	0.137		0.137
2-Chloroethyl vinyl ether	U	< 0.107			μg/L	1	0.107	1	0.107
cis-1,3-Dichloropropene	U			< 0.257		1	0.257	5	0.257
trans-1,3-Dichloropropene	U	<0.109		< 0.109	μg/L	1	0.109	1	0.109
Toluene	J	< 0.181		< 0.181		1	0.181	1	0.181
1,1,2-Trichloroethane	\overline{U}	0.124		< 0.117	$\mu g/L$	1	0.117	1	0.117
1,3-Dichloropropane	U	< 0.143		< 0.143		1	0.143	1	0.143
Dibromochloromethane	U	< 0.191		< 0.191		1	0.191	1	0.191
1,2-Dibromoethane (EDB)	U	<0.118		<0.118		1	0.118	1	0.118
1,2-131010110ctilane (EDD)		< 0.131	<u> </u>	< 0.131	μg/ L	1	0.131	ntimued	0.131

⁵Concentration biased low. ⁶Concentration biased low.

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sample 209312 continued ...

		SDL	MQL	Method					
			Based	Blank				MQL	MDL
Parameter	Flag	Result	Result			Dilution	SDL	(Unadjusted)	(Unadjusted)
Tetrachloroethene (PCE)	₹ <i>0</i> .]	10.000		< 0.353		1	0.353	1	0.353
Chlorobenzene	U	< 0.135	<1.00	< 0.135	$\mu { m g}/{ m L}$	1	0.135	1	0.135
1,1,1,2-Tetrachloroethane	U	< 0.263	<1.00	< 0.263	$\mu { m g/L}$	1	0.263	1	0.263
Ethylbenzene	U	< 0.174		< 0.174	$\mu \mathrm{g/L}$	1	0.174	1	0.174
m,p-Xylene	U	< 0.220		< 0.220		1	0.220	1	0.22
Bromoform	U	< 0.385	<1.00	< 0.385	$\mu { m g/L}$	1	0.385	1	0.385
Styrene	U	< 0.413	< 1.00	< 0.413	$\mu \mathrm{g/L}$	1	0.413	1	0.413
o-Xylene	U	< 0.115		< 0.115	$\mu \mathrm{g/L}$	1	0.115	1	0.115
1,1,2,2-Tetrachloroethane	U	< 0.766	<1.00	< 0.766		1	0.766	1	0.766
2-Chlorotoluene	U	< 0.132	< 1.00	< 0.132	$\mu \mathrm{g/L}$	1	0.132	1	0.132
1,2,3-Trichloropropane	U	< 0.599	< 1.00	< 0.599	$\mu \mathrm{g/L}$	1	0.599	1	0.599
Isopropylbenzene		2.22	2.22	< 0.145		1	0.145	1	0.145
Bromobenzene	U	< 0.266	<1.00	< 0.266	$\mu \mathrm{g/L}$	1	0.266	1	0.266
n-Propylbenzene	U	< 0.136	< 1.00	< 0.136	$\mu \mathrm{g/L}$	1	0.136	1	0.136
1,3,5-Trimethylbenzene	U	< 0.124	< 1.00	< 0.124		1	0.124	1	0.124
tert-Butylbenzene	J.	0.195	< 1.00	< 0.136		1	0.136	1	0.136
1,2,4-Trimethylbenzene	S U	< 0.114	< 1.00	< 0.114		1	0.114	1	0.114
1,4-Dichlorobenzene (para)	U	< 0.230	< 1.00	< 0.230		1	0.230	1	0.23
sec-Butylbenzene		3.21	3.21	< 0.452		1	0.452	1	0.452
1,3-Dichlorobenzene (meta)	U	< 0.214	<1.00	< 0.214		1	0.214	1	0.214
p-Isopropyltoluene	U	< 0.126	< 1.00	< 0.126	$\mu g/L$	1	0.126	1	0.126
4-Chlorotoluene	U	< 0.161	< 1.00	< 0.161	$\mu g/L$	1	0.161	1	0.161
1,2-Dichlorobenzene (ortho)	U	< 0.357	< 1.00	< 0.357	$\mu g/L$	1	0.357	1	0.357
n-Butylbenzene	*\\\ \)	B0.696	< 1.00	0.163	$\mu g/L$	1	0.125	1	0.125
1,2-Dibromo-3-chloropropane	U	< 0.977	< 5.00	< 0.977		1	0.977	5	0.977
1,2,3-Trichlorobenzene	U	< 0.400	< 5.00	< 0.400	$\mu g/L$	1	0.400	5	0.4
1,2,4-Trichlorobenzene	U	< 0.227	< 5.00	< 0.227	$\mu g/L$	1	0.227	5	0.227
Naphthalene		35.0	35.0	< 0.672	μg/L	1	0.672	5	0.672
Hexachlorobutadiene	U	< 0.198	< 5.00	0.473	$\mu \mathrm{g}/\mathrm{L}$	1	0.198	5	0.198

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		48.6	$\mu \mathrm{g/L}$	1	50.0	97	70 - 130
Toluene-d8		52.0	$\mu { m g/L}$	1	50.0	104	70 - 130
4-Bromofluorobenzene (4-BFB)		51.1	$\mu { m g}/{ m L}$	1	50.0	102	70 - 130

Sample: 209313 - HLSF-0154-DRW-005-0909

Laboratory: Lubbock

Analysis: Volatiles QC Batch: 63556 Prep Batch: 54254

Analytical Method: S 8260B Date Analyzed: 2009-09-14 Sample Preparation: 2009-09-14 Prep Method: S 5030B Analyzed By: JG Prepared By: JG

⁷Concentration biased low.

⁸Concentration biased low.

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
Chloromethane (methyl chloride) U <0.164 <1.00 <0.164 μ g/L 1 0.164 1 0.164 Vinyl Chloride U <0.110 <1.00 <0.110 μ g/L 1 0.110 1 0.11 Bromomethane (methyl bromide) U <0.540 <5.00 <0.540 μ g/L 1 0.540 5 0.54 Chloroethane U <0.232 <1.00 <0.232 μ g/L 1 0.232 1 0.232	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
Bromomethane (methyl bromide) U <0.540 <5.00 <0.540 $\mu g/L$ 1 0.540 5 0.54 Chloroethane U <0.232 <1.00 <0.232 $\mu g/L$ 1 0.232 1 0.232	
Chloroethane $U < 0.232 < 1.00 < 0.232 \mu g/L 1 0.232 1 0.232$	
Acetone $\int 8.78 \text{ UB } 1.32 < 10.0 = 2.05 \mu\text{g/L} = 1 = 0.145 10 =$	
Iodomethane (methyl iodide) $U < 0.104 < 5.00 < 0.104 \mu g/L 1 0.104 5 0.104$	
Carbon Disulfide $U < 0.120 < 1.00 < 0.120 \mu g/L 1 0.120 1 0.12$	
Acrylonitrile $U < 0.189 < 1.00 < 0.189 \mu g/L 1 0.189 1 0.189$	
2-Butanone (MEK) $^{10\ U}$ <0.218 <5.00 0.596 μ g/L 1 0.218 5 0.218	
4-Methyl-2-pentanone (MIBK) U <0.554 <5.00 <0.554 $\mu g/L$ 1 0.554 5 0.554	į
2-Hexanone $U < 0.863 < 5.00 < 0.863 \mu g/L 1 0.863 5 0.863$	}
trans 1,4-Dichloro-2-butene U <0.607 <10.0 <0.607 $\mu g/L$ 1 0.607 10 0.607	
1,1-Dichloroethene $\frac{J}{U}$ 0.518 <1.00 <0.102 $\mu \mathrm{g/L}$ 1 0.102 1 0.102	
Methylene chloride $U < 0.270 < 5.00 < 0.270 \ \mu g/L \ 1 \ 0.270 \ 5 \ 0.27$	
MTBE 2.42 2.42 $< 0.122 \mu g/L$ 1 0.122 1 0.122 trans-1.2-Dichloroethene $U < 0.168 < 1.00 < 0.168 \mu g/L$ 1 0.168 1 0.168	
$\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$	
0.101 (1.00 (0.101 µg/L 1 0.101 1 0.101	
2,2-Dichloropropane U <0.167 <1.00 <0.167 μ g/L 1 0.167 1 0.167 1,2-Dichloroethane (EDC) U <0.0890 <1.00 <0.0890 μ g/L 1 0.0890 1 0.089	
Chloroform $U = \langle 0.0890 \rangle \langle 1.00 \rangle \langle 0.0890 \rangle \mu g/L = 1 = 0.0890 \rangle \langle 0.0890$	
U <0.170 <1.00 <0.171 $\mu g/E$ 1 0.171 1 0.171 1 0.171	
1,1-Dichloropropene $U < 0.156 < 1.00 < 0.156 \mu g/L 1 0.156 1 0.156$	
Benzene $5.49 ext{ } 5.49 ext{ } < 0.113 ext{ } \mu \text{g/L} ext{ } 1 ext{ } 0.113 ext{ } 1 ext{ } 0.113$	
Carbon Tetrachloride $U < 0.0930 < 1.00 < 0.0930 \mu g/L 1 0.0930 1 0.093$	
1,2-Dichloropropane $U < 0.129 < 1.00 < 0.129 \mu g/L 1 0.129 1 0.129$	
Trichloroethene (TCE) J 0.529 <1.00 <0.160 $\mu g/L$ 1 0.160 1 0.16	
Dibromomethane (methylene bromide) $U = <0.137 < 1.00 < 0.137 \mu g/L = 1 = 0.137 = 1 = 0.137$,
Bromodichloromethane $U < 0.107 < 1.00 < 0.107 \mu g/L 1 0.107 1 0.107$,
2-Chloroethyl vinyl ether $\frac{U}{V} < 0.257 < 5.00 < 0.257 \mu g/L$ 1 0.257 5 0.257	
cis-1,3-Dichloropropene $\frac{U}{V}$ <0.109 <1.00 <0.109 $\mu g/L$ 1 0.109 1 0.109	
trans-1,3-Dichloropropene $U < 0.181 < 1.00 < 0.181 \mu g/L 1 0.181 1 0.181 $	
$0.201 \times 1.00 \times 0.117 \text{ µg/L} = 1 \times 0.117 1 \times 0.117$	
0.191 0.191 0.191 0.191	
$0.110 \times 1.00 \times$	
1,2-Dibromoethane (EDB) $0.131 < 1.00 < 0.131 \ \mu g/L$ 1 0.131 1 0.131 Tetrachloroethene (PCE) $0.353 < 1.00 < 0.353 \ \mu g/L$ 1 0.353 1 0.353	
Chlorobenzene $U = \langle 0.355 \rangle \langle 1.00 \rangle \langle 0.355 \rangle \mu g/L = 1 = 0.355 = 1 = 0.355$	
0.133 $1.1,1,2$ -Tetrachloroethane 0.133 $1.1,1,2$ -Tetrachloroethane 0.263 $1.1,1,2$ -Tetrachloroethane 0.263 $1.1,1,2$ -Tetrachloroethane	
Ethylbenzene $U < 0.174 < 1.00 < 0.174 \mu g/L 1 0.174 1 0.174$	

 ⁹Concentration biased low.
 ¹⁰Concentration biased low.
 ¹¹Concentration biased low.

 $sample~209313~continued~\dots$

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
m,p-Xylene	U	< 0.220	<1.00	< 0.220	$\mu g/L$	1	0.220	1	0.22
Bromoform	U	< 0.385	< 1.00	< 0.385	$\mu \mathrm{g/L}$	1	0.385	1	0.385
Styrene	U	< 0.413	< 1.00	< 0.413	$\mu \mathrm{g/L}$	1	0.413	1	0.413
o-Xylene	J	0.179	< 1.00	< 0.115	$\mu g/L$	1	0.115	1	0.115
1,1,2,2-Tetrachloroethane	U	< 0.766	<1.00	< 0.766	$\mu \mathrm{g/L}$	1	0.766	1	0.766
2-Chlorotoluene	U	< 0.132	< 1.00	< 0.132	$\mu g/L$	1	0.132	1	0.132
1,2,3-Trichloropropane	U	< 0.599	< 1.00	< 0.599	$\mu \mathrm{g/L}$	1	0.599	1	0.599
Isopropylbenzene		1.49	1.49	< 0.145	$\mu \mathrm{g/L}$	1	0.145	1	0.145
Bromobenzene	U	< 0.266	< 1.00	< 0.266	$\mu \mathrm{g/L}$	1	0.266	1	0.266
n-Propylbenzene	U	< 0.136	<1.00	< 0.136	$\mu \mathrm{g/L}$	1	0.136	1	0.136
1,3,5-Trimethylbenzene	U	< 0.124	<1.00	< 0.124	$\mu \mathrm{g/L}$	1	0.124	1	0.124
tert-Butylbenzene	U	< 0.136	<1.00	< 0.136	$\mu g/L$	1	0.136	1	0.136
1,2,4-Trimethylbenzene	18 18	$^{ m B}0.123$	< 1.00	< 0.114	$\mu g/L$	1	0.114	1	0.114
1,4-Dichlorobenzene (para)	U	< 0.230	< 1.00	< 0.230	$\mu \mathrm{g/L}$	1	0.230	1	0.23
sec-Butylbenzene		2.20	2.20	< 0.452	$\mu \mathrm{g/L}$	1	0.452	1	0.452
1,3-Dichlorobenzene (meta)	U	< 0.214	< 1.00	< 0.214	$\mu \mathrm{g/L}$	1	0.214	1	0.214
p-Isopropyltoluene	U	< 0.126	< 1.00	< 0.126	$\mu \mathrm{g/L}$	1.	0.126	1	0.126
4-Chlorotoluene	U	< 0.161	< 1.00	< 0.161	$\mu \mathrm{g/L}$	1	0.161	1	0.161
1,2-Dichlorobenzene (ortho)	U	< 0.357	< 1.00	< 0.357	$\mu \mathrm{g/L}$	1	0.357	1	0.357
n-Butylbenzene	JB	0.631	< 1.00	0.163	$\mu \mathrm{g/L}$	1	0.125	1	0.125
1,2-Dibromo-3-chloropropane	U	< 0.977	< 5.00	< 0.977	$\mu \mathrm{g/L}$	1	0.977	5	0.977
1,2,3-Trichlorobenzene	U	< 0.400	< 5.00	< 0.400	$\mu \mathrm{g/L}$	1	0.400	5	0.4
1,2,4-Trichlorobenzene	U	< 0.227	< 5.00	< 0.227		1	0.227	5	0.227
Naphthalene		9.47	9.47	< 0.672		1	0.672	5	0.672
Hexachlorobutadiene	U	< 0.198	< 5.00	0.473		1	0.198	5	0.198

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		48.9	μg/L	1	50.0	98	70 - 130
Toluene-d8		50.8	$\mu { m g}/{ m L}$	1	50.0	102	70 - 130
4-Bromofluorobenzene (4-BFB)		51.4	$\mu { m g}/{ m L}$	1	50.0	103	70 - 130

Sample: 209314 - HLSF-0143-HMW-013-0909

Laboratory:	Lubbock				
Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	63556	Date Analyzed:	2009-09-14	Analyzed By:	$_{ m JG}$
Prep Batch:	54254	Sample Preparation:	2009-09-14	Prepared By:	JG

continued . . .

¹²Concentration biased low.

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sample 209314 continued ...

			MQL Based	Method Blank				MQL	MDL
Parameter	Flag				Units	Dilution	SDL		(Unadjusted)
		CDI	MOI	N.S. (1 1					
		SDL	MQL Based	Method Blank				MOT	MDL
Parameter	Flag		Result		Unita	Dilution	SDL	MQL	(Unadjusted)
Bromochloromethane	U	< 0.169				1	0.169	(Onadjusted)	0.169
Dichlorodifluoromethane	U	< 0.145			$\mu_{\rm B}/\Gamma$	1	0.145	1	0.145
Chloromethane (methyl chloride)	U	< 0.140				1	0.164	1	0.164
Vinyl Chloride	U	< 0.110				1	0.110	1	0.11
Bromomethane (methyl bromide)	U	< 0.540				1	0.540	5	0.54
Chloroethane	U	< 0.232				1	0.232	1	0.232
Trichlorofluoromethane	U	ZO 140	<1.00			1	0.149	1	0.149
Acetone	ોલ્ U	J<0.143	<10.0		$\mu g/L$	1	0.893	10	0.893
Iodomethane (methyl iodide)	U	< 0.104	< 5.00			1	0.104	5	0.104
Carbon Disulfide	U	< 0.120				1	0.120	1	0.12
Acrylonitrile	U	< 0.189				1	0.189	1	0.189
2-Butanone (MEK)	N U	< 0.218		0.596		î	0.218	5	0.218
4-Methyl-2-pentanone (MIBK)	U	< 0.554				1	0.554	5	0.554
2-Hexanone	U	< 0.863		< 0.863		1	0.863	5	0.863
trans 1,4-Dichloro-2-butene	U	< 0.607				1	0.607	10	0.607
1,1-Dichloroethene	U	< 0.102		< 0.102	ug/L	1	0.102	1	0.102
Methylene chloride	U	< 0.270				$\tilde{1}$	0.270	5	0.27
MTBE	U	< 0.122		< 0.122		1	0.122	1	0.122
trans-1,2-Dichloroethene	U	< 0.168				$\overline{1}$	0.168	1	0.168
1,1-Dichloroethane		1.16	1.16	< 0.107		1	0.107	1	0.107
cis-1,2-Dichloroethene	U	< 0.151				1	0.151	1	0.151
2,2-Dichloropropane	U	< 0.167		< 0.167		1	0.167	1	0.167
1,2-Dichloroethane (EDC)	U			< 0.0890		1	0.0890	1	0.089
Chloroform	J		< 1.00			1	0.121	1	0.121
1,1,1-Trichloroethane	U	< 0.170		< 0.170		1	0.170	1	0.17
1,1-Dichloropropene	U	< 0.156		< 0.156		1	0.156	1	0.156
Benzene	U	< 0.113		< 0.113		1	0.113	1	0.113
Carbon Tetrachloride	U			< 0.0930		1	0.0930	1	0.093
1,2-Dichloropropane	U	< 0.129		< 0.129		1	0.129	1	0.129
Trichloroethene (TCE)	U	< 0.160		< 0.160		1	0.160	1	0.16
Dibromomethane (methylene bromide)	U	< 0.137		< 0.137		1	0.137	1	0.137
Bromodichloromethane	U	< 0.107	< 1.00	< 0.107		1	0.107	1	0.107
2-Chloroethyl vinyl ether	U			< 0.257	$\mu g/L$	1	0.257	5	0.257
cis-1,3-Dichloropropene	U	< 0.109		< 0.109	$\mu g/L$	1	0.109	1	0.109
trans-1,3-Dichloropropene	U	< 0.181	< 1.00			1.	0.181	1	0.181
Toluene	U	< 0.117				1	0.117	1	0.117
1,1,2-Trichloroethane	U	< 0.143	< 1.00	< 0.143		1	0.143	1	0.143
1,3-Dichloropropane	U	< 0.191		< 0.191		1.	0.191	1	0.191
Dibromochloromethane	U	< 0.118	<1.00	< 0.118		1	0.118	1	0.118

continued ...

¹³Concentration biased low.
¹⁴Concentration biased low.

sample 209314 continued . . .

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
1,2-Dibromoethane (EDB)	. 0	< 0.131	<1.00	< 0.131	$\mu g/L$	1	0.131	1	0.131
Tetrachloroethene (PCE)	NO U	J<0.353	< 1.00	< 0.353	$\mu \mathrm{g/L}$	1	0.353	1	0.353
Chlorobenzene	U	< 0.135	< 1.00	< 0.135	$\mu g/L$	1	0.135	1	0.135
1,1,1,2-Tetrachloroethane	U	< 0.263	< 1.00	< 0.263	$\mu { m g}/{ m L}$	1	0.263	1	0.263
Ethylbenzene	U	< 0.174	<1.00	< 0.174	$\mu \mathrm{g/L}$	1	0.174	1	0.174
m,p-Xylene	U	< 0.220	<1.00	< 0.220	$\mu \mathrm{g/L}$	1	0.220	1	0.22
Bromoform	U	< 0.385	<1.00	< 0.385	$\mu \mathrm{g/L}$	1	0.385	1	0.385
Styrene	U	< 0.413	<1.00	< 0.413		1	0.413	1	0.413
o-Xylene	U	< 0.115	< 1.00	< 0.115	$\mu \mathrm{g/L}$	1	0.115	1	0.115
1,1,2,2-Tetrachloroethane	U	< 0.766	< 1.00	< 0.766	$\mu \mathrm{g/L}$	1	0.766	1	0.766
2-Chlorotoluene	U	< 0.132	< 1.00	< 0.132	$\mu \mathrm{g/L}$	1	0.132	1	0.132
1,2,3-Trichloropropane	U	< 0.599	< 1.00	< 0.599	$\mu \mathrm{g/L}$	1	0.599	1	0.599
Isopropylbenzene	U	< 0.145	< 1.00	< 0.145		1	0.145	1	0.145
Bromobenzene	U	< 0.266	< 1.00	< 0.266	$\mu \mathrm{g/L}$	1	0.266	1	0.266
n-Propylbenzene	U	< 0.136	< 1.00	< 0.136		1	0.136	1	0.136
1,3,5-Trimethylbenzene	U	< 0.124	<1.00	< 0.124	$\mu g/L$	1	0.124	1	0.124
tert-Butylbenzene	V	< 0.136	< 1.00	< 0.136		1	0.136	1	0.136
1,2,4-Trimethylbenzene	J6 ∩	< 0.114	< 1.00	< 0.114		1	0.114	1	0.114
1,4-Dichlorobenzene (para)	Ò	< 0.230	< 1.00	< 0.230	$\mu \mathrm{g}/\mathrm{L}$	1	0.230	1	0.23
sec-Butylbenzene	U	< 0.452	< 1.00	< 0.452	$\mu \mathrm{g/L}$	1	0.452	1	0.452
1,3-Dichlorobenzene (meta)	U	< 0.214	< 1.00	< 0.214		1	0.214	1	0.214
p-Isopropyltoluene	U	< 0.126	<1.00	< 0.126		1	0.126	1	0.126
4-Chlorotoluene	U	< 0.161	< 1.00	< 0.161	$\mu \mathrm{g/L}$	1	0.161	1	0.161
1,2-Dichlorobenzene (ortho)	U	< 0.357	< 1.00	< 0.357		1	0.357	1	0.357
n-Butylbenzene	U	< 0.125	< 1.00	0.163		1	0.125	1	0.125
1,2-Dibromo-3-chloropropane	U	< 0.977	< 5.00	< 0.977		1	0.977	5	0.977
1,2,3-Trichlorobenzene	U	< 0.400		< 0.400		1	0.400	5	0.4
1,2,4-Trichlorobenzene	U	< 0.227	< 5.00	< 0.227		1	0.227	5	0.227
Naphthalene	U	< 0.672		< 0.672	$\mu g/L$	1	0.672	5	0.672
Hexachlorobutadiene	U	< 0.198		0.473		1	0.198	5	0.198
		***************************************					······································	·····	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		48.8	$\mu \mathrm{g/L}$	1	50.0	98	70 - 130
Toluene-d8		51.6	$\mu { m g}/{ m L}$	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		51.0	$\mu { m g}/{ m L}$	1	50.0	102	70 - 130

Sample: 209315 - HLSF-0143-HMW-036-0909

Laboratory: Lubbock

Analysis: Volatiles QC Batch: 63556

Analytical Method: S 8260B Date Analyzed: 2009-09-14

260B Prep Method: S 5030B 9-09-14 Analyzed By: JG

¹⁵Concentration biased low.

¹⁶Concentration biased low.

Page Number: 12 of 28

Prep Batch: 54254	San	ple Prepa	aration:	2009-0	9-14			Prepared By:	JG
		SDL	MQL	Method					
			Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted) (Unadjusted)
Bromochloromethane	U	< 0.169	<1.00	< 0.169	$\mu g/L$	1	0.169	1	0.169
Dichlorodifluoromethane	U	< 0.145	<1.00	< 0.145	$\mu g/L$	1	0.145	1	0.145
Chloromethane (methyl chloride)	U	< 0.164	< 1.00	< 0.164	$\mu \mathrm{g/L}$	1	0.164	1	0.164
Vinyl Chloride	U	< 0.110	< 1.00	< 0.110	$\mu g/L$	1	0.110	1	0.11
Bromomethane (methyl bromide)	U	< 0.540		< 0.540	$\mu g/L$	1	0.540	5	0.54
Chloroethane	U	< 0.232		< 0.232		1	0.232	1	0.232
Trichlorofluoromethane	U_{ζ}	< 0.149	< 1.00	< 0.149	$\mu g/L$	1	0.149	1	0.149
Acetone \mathcal{J}°	, 16 AB	UB 1.15	<10.0	2.05	$\mu \mathrm{g/L}$	1	0.893	10	0.893
Iodomethane (methyl iodide)	U	< 0.104	< 5.00	< 0.104		1	0.104	5	0.104
Carbon Disulfide	U	< 0.120	< 1.00	< 0.120		1	0.120	1	0.12
Acrylonitrile	$\bigcup_{i \in I} U_i$	< 0.189	< 1.00	< 0.189		1	0.189	1	0.189
2-Butanone (MEK)	№ U	< 0.218	< 5.00	0.596		1	0.218	5	0.218
4-Methyl-2-pentanone (MIBK)	U	< 0.554	< 5.00	< 0.554		1	0.554	5	0.554
2-Hexanone	U	< 0.863	< 5.00	< 0.863		1	0.863	5	0.863
trans 1,4-Dichloro-2-butene	U	< 0.607	<10.0	< 0.607		1	0.607	10	0.607
1,1-Dichloroethene	U	< 0.102	<1.00	< 0.102		1	0.102	1	0.102
Methylene chloride	J	0.283	< 5.00	< 0.270		1	0.270	5	0.27
MTBE	U	< 0.122	< 1.00	< 0.122		1	0.122	1	0.122
trans-1,2-Dichloroethene	U	< 0.168	< 1.00	< 0.168		1	0.168	1	0.168
1,1-Dichloroethane	J	0.273	< 1.00	< 0.107		1	0.107	1	0.107
cis-1,2-Dichloroethene	U	< 0.151	< 1.00	< 0.151	$\mu g/L$	1	0.151	1	0.151
2,2-Dichloropropane	U	< 0.167		< 0.167	$\mu g/L$	1	0.167	1	0.167
I,2-Dichloroethane (EDC)	U			< 0.0890	$\mu g/L$	1	0.0890		0.089
Chloroform	J	0.549		< 0.121		1	0.121	1	0.121
1,1,1-Trichloroethane	U	< 0.170		< 0.170		1	0.170	1	0.17
1,1-Dichloropropene	U	< 0.156				1	0.156	1	0.156
Benzene	J	0.130		< 0.113		1	0.113	1	0.113
Carbon Tetrachloride	U			< 0.0930		1	0.0930		0.093
1,2-Dichloropropane	U	< 0.129	< 1.00	< 0.129		1	0.129	1	0.129
Irichloroethene (TCE)	U			< 0.160		1	0.160	1	0.16
Dibromomethane (methylene bromide)	U	< 0.137		< 0.137		1	0.137	1	0.137
3romodichloromethane	U	< 0.107		< 0.107		1	0.107	1	0.107
2-Chloroethyl vinyl ether	U	< 0.257	< 5.00	< 0.257		1	0.257	5	0.257
cis-1,3-Dichloropropene	U	< 0.109		< 0.109		1	0.109	1	0.109
rans-1,3-Dichloropropene	U	< 0.181		< 0.181		1	0.181	1	0.181
Coluene	U	< 0.117		< 0.117		1	0.117	1	0.117
,1,2-Trichloroethane	U	< 0.143		< 0.143		1	0.143	1	0.143
,3-Dichloropropane	U	< 0.191		< 0.191		1	0.191	1	0.191
Dibromochloromethane	U	< 0.118		< 0.118		1	0.118	1	0.118
,2-Dibromoethane (EDB)	\sqrt{U}	< 0.131		< 0.131		1	0.131	ĩ	0.131
letrachloroethene (PCE)	NUJ	< 0.353	<1.00	< 0.353	μg/L	1	0.353	1	0.353

continued . .

 ¹⁷ Concentration biased low.
 18 Concentration biased low.
 19 Concentration biased low.

sample 209315 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
1,1,1,2-Tetrachloroethane	U	< 0.263	<1.00	< 0.263	$\mu \mathrm{g/L}$	1	0.263	1	0.263
Ethylbenzene	U	< 0.174	< 1.00	< 0.174		1	0.174	1	0.174
m,p-Xylene	U	< 0.220	< 1.00	< 0.220	$\mu \mathrm{g}/\mathrm{L}$	1	0.220	1	0.22
Bromoform	U	< 0.385	< 1.00	< 0.385		1	0.385	1	0.385
Styrene	U	< 0.413	< 1.00	< 0.413		1	0.413	1	0.413
o-Xylene	.J		< 1.00	< 0.115		1	0.115	1	0.115
1,1,2,2-Tetrachloroethane	U	< 0.766	<1.00	< 0.766		1	0.766	1	0.766
2-Chlorotoluene	U	< 0.132	< 1.00	< 0.132		1	0.132	1	0.132
1,2,3-Trichloropropane	U	< 0.599	<1.00	< 0.599	$\mu \mathrm{g/L}$	1	0.599	1	0.599
Isopropylbenzene	U	< 0.145	< 1.00	< 0.145		1	0.145	1	0.145
Bromobenzene	U	< 0.266	< 1.00	< 0.266	$\mu \mathrm{g/L}$	1	0.266	1	0.266
n-Propylbenzene	U	< 0.136	< 1.00	< 0.136		1	0.136	1	0.136
1,3,5-Trimethylbenzene	U	< 0.124	<1.00	< 0.124		1	0.124	1	0.124
tert-Butylbenzene	\mathbf{V}^U	< 0.136	< 1.00	< 0.136	$\mu \mathrm{g/L}$	1	0.136	1	0.136
1,2,4-Trimethylbenzene	≥ 0 U	< 0.114	<1.00	< 0.114	$\mu \mathrm{g/L}$	1	0.114	1	0.114
1,4-Dichlorobenzene (para)	v	< 0.230	< 1.00	< 0.230		1	0.230	1	0.23
sec-Butylbenzene	U	< 0.452	<1.00	< 0.452	$\mu \mathrm{g/L}$	1	0.452	1	0.452
1,3-Dichlorobenzene (meta)	U	< 0.214	< 1.00	< 0.214		1	0.214	1	0.214
p-Isopropyltoluene	U	< 0.126	< 1.00	< 0.126	$\mu g/L$	1	0.126	1	0.126
4-Chlorotoluene	U	< 0.161	< 1.00	< 0.161		1	0.161	1	0.161
1,2-Dichlorobenzene (ortho)	U	< 0.357	<1.00	< 0.357		1	0.357	1	0.357
n-Butylbenzene	U	< 0.125	< 1.00	0.163		1	0.125	1	0.125
1,2-Dibromo-3-chloropropane	U	< 0.977	< 5.00	< 0.977		1	0.977	5	0.977
1,2,3-Trichlorobenzene	U	< 0.400	< 5.00	< 0.400	$\mu \mathrm{g/L}$	1	0.400	5	0.4
1,2,4-Trichlorobenzene	U	< 0.227	< 5.00	< 0.227		1	0.227	5	0.227
Naphthalene	U	< 0.672		< 0.672		1	0.672	5	0.672
Hexachlorobutadiene	U	< 0.198	< 5.00	0.473		1	0.198	5	0.198

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.4	μg/L	1	50.0	101	70 - 130
Toluene-d8		51.6	$\mu { m g}/{ m L}$	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		51.8	$\mu { m g}/{ m L}$	1	50.0	104	70 - 130

Sample: 209316 - HLSF-0154-DRW-004-0909

La	.boı	ratory:	Lubb	oock,
	4		~	

Analysis:VolatilesAnalytical Method:S 8260BQC Batch:63556Date Analyzed:2009-09-14Prep Batch:54254Sample Preparation:2009-09-14

Prep Method: S 5030B Analyzed By: JG Prepared By: JG

²⁰Concentration biased low.

		SDL	MQL	Method					
			Based	Blank				MQL	MDL
Parameter	Flag		Result			Dilution		(Unadjusted)	
Bromochloromethane	U	< 0.845		< 0.845		5	0.845	1	0.169
Dichlorodiffuoromethane	U	< 0.725		< 0.725		5	0.725	1	0.145
Chloromethane (methyl chloride)	U U	< 0.820	< 5.00	< 0.820		5	0.820	1	0.164
Vinyl Chloride	\overline{v}	< 0.550	< 5.00	< 0.550		5	0.550	1	0.11
Bromomethane (methyl bromide) Chloroethane	Ü	<2.70 <1.16	<25.0	< 2.70		5	2.70	5	0.54
Trichlorofluoromethane	Ü	<0.745	<5.00 <5.00	<1.16		5 5	1.16	1	$0.232 \\ 0.149$
Acetone	T XX XX	UB 8.02	<50.0	< 0.745	$\mu g/L$ $\mu g/L$	5 5	0.745 4.46	1 10	0.149
Iodomethane (methyl iodide)	U	< 0.520	<25.0	< 0.520		5	0.520	5	0.093
Carbon Disulfide	U	< 0.600	<5.00	< 0.600		5	0.600	1	0.104
Acrylonitrile	U	< 0.945	< 5.00	< 0.945		5	0.945	1	0.189
2-Butanone (MEK)	3/2 XX	UB2.24	<25.0		$\mu g/L$	5	1.09	5	0.218
4-Methyl-2-pentanone (MIBK)	U	< 2.77	<25.0	< 2.77		5	2.77	5	0.554
2-Hexanone	U	< 4.32	<25.0	< 4.32		5	4.32	5	0.863
trans 1,4-Dichloro-2-butene	U	< 3.04	< 50.0	< 3.04	$\mu { m g/L}$	5	3.04	10	0.607
1,1-Dichloroethene	J	4.01	< 5.00	< 0.510		5	0.510	1	0.102
Methylene chloride	J	1.45	< 25.0	< 1.35		5	1.35	5	0.27
MTBE	7.7	7.13	7.13	< 0.610		5	0.610	1	0.122
trans-1,2-Dichloroethene	U	< 0.840	< 5.00	< 0.840		5	0.840	1	0.168
1,1-Dichloroethane	U	142	142	< 0.535		5	0.535	1	0.107
cis-1,2-Dichloroethene	\overline{v}	< 0.755	< 5.00	< 0.755		5	0.755	1	0.151
2,2-Dichloropropane 1,2-Dichloroethane (EDC)	U	< 0.835	< 5.00	< 0.835		5 -	0.835	I	0.167
Chloroform	\overline{U}	<0.445 <0.605	<5.00 <5.00	< 0.445		5	0.445	1	0.089
1,1,1-Trichloroethane	\overline{U}	< 0.850	<5.00	<0.605 <0.850		5 5	$0.605 \\ 0.850$	1 1	$0.121 \\ 0.17$
1,1-Dichloropropene		7.60	7.60	< 0.780		5	0.780	1	0.17
Benzene		5.10	5.10	< 0.565			0.565	1	0.130
Carbon Tetrachloride	U	< 0.465	< 5.00	< 0.465			0.465	1	0.093
1,2-Dichloropropane	U	< 0.645	< 5.00	< 0.645			0.645	î	0.129
Trichloroethene (TCE)	U	< 0.800	< 5.00	< 0.800			0.800	1	0.16
Dibromomethane (methylene bromide)		< 0.685	< 5.00	< 0.685			0.685	1	0.137
Bromodichloromethane	U	< 0.535	< 5.00	< 0.535			0.535	1	0.107
2-Chloroethyl vinyl ether	U	<1.28	<25.0	<1.28	$\mu { m g/L}$	5	1.28	5	0.257
cis-1,3-Dichloropropene	U	< 0.545	< 5.00	< 0.545			0.545	1	0.109
trans-1,3-Dichloropropene	U	< 0.905	< 5.00	< 0.905			0.905	1	0.181
Toluene	J		< 5.00	< 0.585			0.585	1	0.117
1,1,2-Trichloroethane	U U	< 0.715		< 0.715			0.715	1	0.143
1,3-Dichloropropane	U	< 0.955	< 5.00	< 0.955			0.955	1	0.191
Dibromochloromethane 1,2-Dibromoethane (EDB)	U	< 0.590	<5.00	< 0.590			0.590	1	0.118
Tetrachloroethene (PCE)	23 U J	< 0.655	< 5.00	< 0.655			0.655	1	0.131
Chlorobenzene	U	<1.76 <0.675	<5.00 <5.00	<1.76 <0.675		5 5	1.76	1	0.353
1,1,1,2-Tetrachloroethane	U	<1.32		<1.32		5 5	0.675 1.32	1 1	0.135 0.263
Ethylbenzene	U	< 0.870		< 0.870			0.870	1	0.203
		Z0.010	~0.00	70.010	#8/ L	U	0.010	1	0.114

continued ...

 ²¹Concentration biased low.
 ²²Concentration biased low.
 ²³Concentration biased low.

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sample 209316 continued . . .

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
m,p-Xylene	U	<1.10	< 5.00	<1.10	$\mu { m g/L}$	5	1.10	1	0.22
Bromoform	U	< 1.92	< 5.00	< 1.92	$\mu { m g/L}$	5	1.92	1	0.385
Styrene	U	< 2.06	< 5.00	< 2.06	$\mu { m g/L}$	5	2.06	1	0.413
o-Xylene	U	< 0.575	< 5.00	< 0.575	$\mu \mathrm{g/L}$	5	0.575	1	0.115
1,1,2,2-Tetrachloroethane	U	< 3.83	< 5.00	<3.83		5	3.83	1	0.766
2-Chlorotoluene	U	< 0.660	< 5.00	< 0.660	$\mu \mathrm{g/L}$	5	0.660	1	0.132
1,2,3-Trichloropropane	U	< 3.00	< 5.00	< 3.00		5	3.00	1	0.599
Isopropylbenzene	J	2.33	<5.00	< 0.725	$\mu \mathrm{g/L}$	5	0.725	1	0.145
Bromobenzene	U	< 1.33	< 5.00	<1.33	$\mu \mathrm{g/L}$	5	1.33	1	0.266
n-Propylbenzene	U	< 0.680	< 5.00	< 0.680		5	0.680	1	0.136
1,3,5-Trimethylbenzene	U	< 0.620	< 5.00	< 0.620	$\mu \mathrm{g/L}$	5	0.620	1	0.124
tert-Butylbenzene	\mathcal{U}	< 0.680	< 5.00	< 0.680		5	0.680	1	0.136
1,2,4-Trimethylbenzene	N U	< 0.570	< 5.00	< 0.570	$\mu \mathrm{g/L}$	5	0.570	1	0.114
1,4-Dichlorobenzene (para)	U	< 1.15	< 5.00	<1.15	$\mu \mathrm{g/L}$	5	1.15	1	0.23
sec-Butylbenzene	J	3.96	< 5.00	< 2.26		5	2.26	1	0.452
1,3-Dichlorobenzene (meta)	U	< 1.07	< 5.00	< 1.07	$\mu { m g}/{ m L}$	5	1.07	1	0.214
p-Isopropyltoluene	U	< 0.630	< 5.00	< 0.630	$\mu \mathrm{g/L}$	5	0.630	1	0.126
4-Chlorotoluene	U	< 0.805	< 5.00	< 0.805		5	0.805	1	0.161
1,2-Dichlorobenzene (ortho)	U	<1.78	< 5.00	< 1.78	$\mu \mathrm{g/L}$	5	1.78	1	0.357
n-Butylbenzene	U	< 0.625	< 5.00	0.815		5	0.625	1	0.125
1,2-Dibromo-3-chloropropane	U	<4.88	<25.0	<4.88		5	4.88	5	0.977
1,2,3-Trichlorobenzene	U	< 2.00	< 25.0	< 2.00	$\mu \mathrm{g/L}$	5	2.00	5	0.4
1,2,4-Trichlorobenzene	U	<1.14	<25.0	<1.14		5	1.14	5	0.227
Naphthalene	U	< 3.36	<25.0	< 3.36		5	3.36	5	0.672
Hexachlorobutadiene	U	< 0.990	<25.0		$\mu \mathrm{g/L}$	5	0.990	5	0.198

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		251	$\mu \mathrm{g/L}$	5	250	100	70 - 130
Toluene-d8		257	$\mu \mathrm{g}/\mathrm{L}$	5	250	103	70 - 130
4-Bromofluorobenzene (4-BFB)		256	$\mu { m g}/{ m L}$	5	250	102	70 - 130

Sample: 209317 - HLSF-0154- $\overline{\text{TB}}$ -0909-002

Laboratory:	Lubbock				
Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	63556	Date Analyzed:	2009-09-14	Analyzed By:	$_{ m JG}$
Prep Batch:	54254	Sample Preparation	n: 2009-09-14	Prepared By:	JG
				a a matrices and	

continued ...

²⁴Concentration biased low.

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sample 209317 continued ...

Parameter	Flag		Based	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
		SDL	MQL	Method					
70			Based	Blank				MQL	MDL
Parameter	Flag	Result				Dilution	SDL	(Unadjusted)	<u> </u>
Bromochloromethane	U U	< 0.169		< 0.169		1	0.169	1	0.169
Dichlorodifluoromethane	\overline{U}	< 0.145				1	0.145	1	0.145
Chloromethane (methyl chloride)	v	< 0.164		< 0.164		1	0.164	1	0.164
Vinyl Chloride	\overline{v}	< 0.110		< 0.110		1	0.110	1	0.11
Bromomethane (methyl bromide)	U	< 0.540		< 0.540		1	0.540	5	0.54
Chloroethane	\ U	< 0.232		< 0.232		1	0.232	1	0.232
Trichlorofluoromethane	25 JB	< 0.149		< 0.149		1	0.149	1	0.149
Acetone	U		<10.0		$\mu \mathrm{g/L}$	1	0.893	10	0.893
Iodomethane (methyl iodide)	U	< 0.104		< 0.104		1	0.104	5	0.104
Carbon Disulfide	νÜ	< 0.120		< 0.120		1	0.120	1	0.12
Acrylonitrile	20 JB	< 0.189		< 0.189		1	0.189	1	0.189
2-Butanone (MEK)	U		< 5.00	0.596		1	0.218	5	0.218
4-Methyl-2-pentanone (MIBK)	\overline{U}	< 0.554		< 0.554		1	0.554	5	0.554
2-Hexanone	U	< 0.863		< 0.863	, ,,,,	1	0.863	5	0.863
trans 1,4-Dichloro-2-butene	\overline{v}	< 0.607		< 0.607		1	0.607	10	0.607
1,1-Dichloroethene	U	< 0.102		< 0.102		1	0.102	1	0.102
Methylene chloride	\overline{U}	< 0.270		< 0.270		1	0.270	5	0.27
MTBE	U	< 0.122		< 0.122		1	0.122	1	0.122
trans-1,2-Dichloroethene	U	< 0.168		< 0.168		1	0.168	1	0.168
1,1-Dichloroethane	υ	< 0.107		< 0.107		1	0.107	1	0.107
cis-1,2-Dichloroethene	U	< 0.151		< 0.151		1	0.151	1	0.151
2,2-Dichloropropane	U	< 0.167		< 0.167		1	0.167	1	0.167
1,2-Dichloroethane (EDC)	U	< 0.0890				1	0.0890		0.089
Chloroform	U	< 0.121		< 0.121		1	0.121	1	0.121
1,1,1-Trichloroethane	v	< 0.170		< 0.170		1	0.170	1	0.17
1,1-Dichloropropene	U	< 0.156		< 0.156		1	0.156	1	0.156
Benzene		< 0.113		< 0.113		1	0.113	1	0.113
Carbon Tetrachloride	\overline{v}	< 0.0930				1	0.0930		0.093
1,2-Dichloropropane	U.Jr	< 0.129		< 0.129		1	0.129	1	0.129
Trichloroethene (TCE)		<0.200		< 0.160		1	0.160	1	0.16
Dibromomethane (methylene bromide)	$\stackrel{\circ}{U}$			< 0.137		1	0.137	1	0.137
Bromodichloromethane	U	< 0.107		< 0.107		1	0.107	1	0.107
2-Chloroethyl vinyl ether	U	< 0.257		< 0.257		1	0.257	5	0.257
cis-1,3-Dichloropropene	U	< 0.109		< 0.109		1	0.109	1	0.109
trans-1,3-Dichloropropene	\overline{v}	< 0.181		< 0.181		1	0.181	1	0.181
Toluene	U	< 0.117		< 0.117		1	0.117	1	0.117
1,1,2-Trichloroethane 1,3-Dichloropropane	U	< 0.143		< 0.143		1	0.143	1	0.143
	U	< 0.191		< 0.191		1	0.191	1	0.191
Dibromochloromethane	•	< 0.118	<1.00	< 0.118	$\mu \mathrm{g}/\mathrm{L}$	1	0.118	1	0.118

²⁵Concentration biased low. ²⁶Concentration biased low.

sample 209317 continued ...

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
1,2-Dibromoethane (EDB)	\overline{v}	< 0.131	<1.00	< 0.131	$\mu \mathrm{g/L}$	1	0.131	1	0.131
Tetrachloroethene (PCE)	27 U	< 0.353	< 1.00	< 0.353	$\mu \mathrm{g/L}$	1.	0.353	1	0.353
Chlorobenzene	U	< 0.135	< 1.00	< 0.135	$\mu \mathrm{g/L}$	1	0.135	1	0.135
1,1,1,2-Tetrachloroethane	U	< 0.263	< 1.00	< 0.263		1	0.263	1	0.263
Ethylbenzene	U	< 0.174	< 1.00	< 0.174		1	0.174	1	0.174
m,p-Xylene	U	< 0.220	<1.00	< 0.220		1	0.220	1	0.22
Bromoform	U	< 0.385	<1.00	< 0.385	$\mu \mathrm{g/L}$	1	0.385	1	0.385
Styrene	U	< 0.413	< 1.00	< 0.413	$\mu g/L$	1	0.413	1	0.413
o-Xylene	U	< 0.115	< 1.00	< 0.115		1	0.115	1	0.115
1,1,2,2-Tetrachloroethane	U	< 0.766	< 1.00	< 0.766		1	0.766	1	0.766
2-Chlorotoluene	U	< 0.132	< 1.00	< 0.132		1	0.132	1	0.132
1,2,3-Trichloropropane	U	< 0.599	< 1.00	< 0.599	$\mu \mathrm{g/L}$	1	0.599	1	0.599
Isopropylbenzene	U	< 0.145	< 1.00	< 0.145		1.	0.145	1	0.145
Bromobenzene	U	< 0.266	<1.00	< 0.266	$\mu \mathrm{g/L}$	1	0.266	1	0.266
n-Propylbenzene	U	< 0.136	<1.00	< 0.136		1	0.136	1	0.136
1,3,5-Trimethylbenzene	U	< 0.124	< 1.00	< 0.124	$\mu \mathrm{g/L}$	1	0.124	1	0.124
tert-Butylbenzene	$\frac{U}{\delta}$	< 0.136	< 1.00	< 0.136		1	0.136	1	0.136
1,2,4-Trimethylbenzene	28 J U	0.269	< 1.00	< 0.114	$\mu g/L$	1	0.114	1	0.114
1,4-Dichlorobenzene (para)	Ù	< 0.230	< 1.00	< 0.230		1	0.230	1	0.23
sec-Butylbenzene	U	< 0.452	< 1.00	< 0.452	$\mu \mathrm{g/L}$	1	0.452	1	0.452
1,3-Dichlorobenzene (meta)	U	< 0.214	< 1.00	< 0.214		1	0.214	1	0.214
p-Isopropyltoluene	U	< 0.126	< 1.00	< 0.126		1	0.126	1	0.126
4-Chlorotoluene	U	< 0.161	< 1.00	< 0.161		1	0.161	1	0.161
1,2-Dichlorobenzene (ortho)	U	< 0.357	< 1.00	< 0.357	$\mu g/L$	1	0.357	1	0.357
n-Butylbenzene	U	< 0.125	< 1.00	0.163		1	0.125	1	0.125
1,2-Dibromo-3-chloropropane	U	< 0.977	< 5.00	< 0.977	$\mu g/L$	1	0.977	5	0.977
1,2,3-Trichlorobenzene	U	< 0.400	< 5.00	< 0.400	$\mu { m g}/{ m L}$	1	0.400	5	0.4
1,2,4-Trichlorobenzene	U	< 0.227	< 5.00	< 0.227		1	0.227	5	0.227
Naphthalene	U	< 0.672	< 5.00	< 0.672	$\mu g/L$	1	0.672	5	0.672
Hexachlorobutadiene	U	< 0.198	< 5.00	0.473		1	0.198	5	0.198

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		48.6	$\mu \mathrm{g/L}$	1	50.0	97	70 - 130
Toluene-d8		50.1	$\mu { m g}/{ m L}$	1	50.0	100	70 - 130
4-Bromoffuorobenzene (4-BFB)		49.8	$\mu { m g}/{ m L}$	1	50.0	100	70 - 130

Method Blank (1)

QC Batch: 63556 Prep Batch: 54254 Date Analyzed: 2009-09-14 QC Preparation: 2009-09-14 Analyzed By: JG Prepared By: JG

²⁷Concentration biased low.

²⁸Concentration biased low.



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